

DEPARTMENT OF PUBLIC HEALTH AND HUMAN SERVICES

# PUBLIC HEALTH LABORATORY MANUAL OF LABORATORY SERVICES

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# **TABLE OF CONTENTS**

Role of the Public Health Laboratory	1
Clinical Testing List of Services  Specimen Collection Procedures	2 - 34
Mycobacterium (Tuberculosis) Collection and Transport Instructions	35
Fungal Culture Collection and Transport Instructions	36
Chlamydia/Gonorrhea APTIMA Amplification Collection and Transport	37
Chlamydia Culture Collection and Transport Instructions	38
Viral Culture Collection and Transport Instructions	39
Amplified Testing Collection and Transport Instructions	40
Serology Collection and Transport Instructions	42
Newborn Screening Collection and Transport Instructions	43
Capillary Blood Lead Collection and Transport Instructions	44
Venous Blood Lead Collection and Transport Instructions	45
Clinical Laboratory Requisition Forms and Instructions	
Standard Laboratory Requisition Instructions and Form	46 - 47
Chlamydia Requisition Form and Instructions	
Newborn Screening Requisition Form and Instructions	50
Supply Request Form	51
Lymp Dispase Poport Form	52

# THE ROLE OF THE PUBLIC HEALTH LABORATORY

As part of our national safety network, Public Health Laboratories are on the front line:

- Monitoring the environments in which we live, work and play
- Investigating and Containing emerging infectious diseases and outbreaks
- Preventing disease and disability in vulnerable populations, including women and children
- **Developing** new methods to combat infectious diseases
- **Preparing** for and responding to local, state, and national emergencies, such as bioterrorism and natural disasters
- **Informing** communities and government about threats or risks to health
- Formulating policies that assure the health and safety of communities

Public Health Laboratories have a unique and important role in protecting the health of our nation. They have a mandate to:

- Assess the health of their communities
- Assure safe and disease-free communities
- Investigate, Identify, Report and Control threats to health
- Screen for infectious and chronic diseases to prevent death and disability
- Research and Develop New Methods to detect chemical and biological threats
- Inform and Educate the public and community officials about risks to health
- Regulate private and clinical laboratories to assure quality laboratory practices
- **Train** laboratory professionals
- Participate in Formulation of Policies that assure the health and safety of our citizens

Public health laboratories are integral to our nation's health system. They are uniquely qualified to support surveillance activities, conduct outbreak investigations, and monitor for new or emerging infectious diseases. They are among our first line of defense against bioterrorism. The health and safety of our nation depends on public health laboratories.

# **Clinical Testing List of Services**

For tests not listed, please contact the Laboratory at 800-821-7284 for availability.

# Acid Fast Bacilli (see Mycobacterium sp.)

# Actinomyces sp. Culture Isolation/ Identification (see Bacterial Culture)

# Actinomyces sp. Serology

Specimen Requirements: 2 ml. Serum CPT Code: 86602

Price: \$8.11

CPT Code: 82017

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 3-6 weeks

Transport Temperature: Ambient

#### Acylcarnitine Profile by Tandem Mass Spectrometry (MS/MS)

Specimen Requirements: Dried blood spots.

See specific instructions on page 43 and the Newborn Screening Practitioner's Manual.

Price: \$10.75

Transport Temperature: Ambient

#### 12 Fatty Acid Oxidation Disorders Screened:

Medium Chain Acyl-CoA Dehydrogenase Deficiency (MCAD)

Long Chain 3-Hydroxyacyl CoA Dehydrogenase Deficiency (LCHAD)

Trifunctional Protein Deficiency (TFP)

Very Long Chain Acyl-CoA Dehydrogenase Deficiency (VLCAD)

Short Chain Acyl-CoA Dehydrogenase Deficiency (SCAD)

Carnitine Palmitoyltransferase Deficiency Type II (CPT-II)

Glutaryl CoA Dehydrogenase Deficiency Type II (Glutaric Acidemia Type II) (GA-II)

2,4 Dienoyl-CoA Reductase Deficiency (DE RED)

Carnitine/Acylcarnitine Translocase Deficiency (CAT)

Carnitine Uptake Defect (CUD)

Medium/Short Chain Hydroxylacyl-CoA Dehydrogenase Deficiency (M/SCHAD)

Medium Chain 3- Ketoacyl-CoA Thiolase Deficiency (MCKAT)

#### 13 Organic Acidemia Disorders Screened:

Glutaryl CoA Dehydrogenase Deficiency Type I (Glutaric Acidemia Type II) (GA-I)

Propionyl CoA Carboxylase Deficiency (Propionic Acidemia) (PA)

Methylmalonic Acidemia Mutase, Methylmalonic Acidemia Cbl A and B, Methylmalonic

Acidemia Cbl C and D (MMA)

Isovaleryl CoA Dehydrogenase Deficiency (Isovaleric Acidemia) (IVA)

2-Methylbutyryl CoA Dehydrogenase Deficiency (2MBCD)

3-Methylcrotonyl CoA Carboxylase Deficiency (3-MMC)

Multiple CoA Carboxylase Deficiency (MCD)

Mitochondrial Acetoacetyl-CoA Thiolase Deficiency (β-KT)

2-Methyl-3-Hydroxbutyryl CoA Dehydrogenase (MHBD)

3-Hydroxy-3-Methylglutaryl -CoA Lyase Deficiency (HMG)

Malonyl CoA Decarboxylase Deficiency (Malonic Acidemia) (MA)

Isobutyryl-CoA Dehydrogenase Deficiency (IBD)

3-Methylglutaconyl-CoA Hydratase Deficiency (3MGA)

Referred to the Wisconsin State Newborn Screening Laboratory

Turn Around Time: 2 - 3 days. Abnormal results are telephoned to the submitter

# Adenovirus Culture (see Respiratory Virus Culture)

#### **Adenovirus Direct Detection** by Real Time PCR

Specimen Requirements: Respiratory specimen in Microtest Transport Media. See specific instructions on page 40-41.

Turn Around Time: 1-3 days. Results are telephoned to the submitter.

Transport Temperature: 2-8°C

#### **AFB** (see *Mycobacterium sp.*)

# **Amebiasis Detection** (see Ova and Parasite Exam)

# **Amebiasis Serology** (see *Entameba histolytica* serology)

#### **Aminoacidopathies** by Tandem Mass Spectrometry (MS/MS)

By special order, the aminoacidopathies of tyrosinemia, citrullinemia, argininosuccinic acidemia, maple syrup urine disease and homocystinuria are performed by Tandem Mass Spectrometry (MS/MS).

Transport Temperature: Ambient

CPT Code: 87798

CPT Code: 82136

Price: \$4.25

Price: \$60.00

Specimen Requirements: Dried Blood Spots

See specific instructions on page 43 and the Newborn Screening Practitioners

Manual

Referred to the Wisconsin State Newborn Screening Laboratory Turn Around Time: 2-3 days. Abnormal results are telephoned to the provider.

### **Anthrax** (see *Bacillus anthracis*)

#### **Antimicrobial Resistant Bacteria Confirmation**

Specimen Requirements: Isolate in Cary Blair Transport or on agar slant. Submit any isolates that demonstrate a resistance pattern that has high epidemiologic significance, such as Methicillin Resistant *Staphylococcus aureus*, Vancomycin Resistant Enterococci, ESBL producing *Enterobacteriaceae*, resistant *S. pneumoniae*, and potential Vancomycin Resistant or Intermediate *Staphylococcus aureus*.

Price: No cost

CPT Code: None

Transport Temperature: Ambient

Turn Around Time: 2-4 days; may be referred to the Centers for Disease Control in Atlanta, Georgia.

# **Arbovirus Serology, Additional Tests** (Western Equine Encephalitis and California Group) by capture ELISA, ELISA

Specimen Requirements: 2 ml. Serum or CSF Paired acute and convalescent serum recommended. Date of onset must be included on requisition form. CPT Codes: 86654 (WEE) Price: \$8.11 86651 (CA) Price: \$8.11

Transport Temperature: Ambient

Referred to the Centers for Disease Control, Fort Collins, CO.

Turn Around Time: 4-6 weeks

# Argininosuccinic acidemia (See Aminoacidopathies by MS/MS)

#### Aspergillus sp. Culture Isolation/ Identification (see Fungal Culture)

Aspergillus sp. Serology by Agar Gel Diffusion

Specimen Requirements: 2 ml. Serum CPT Code: 86606

Price: \$8.11

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 3-6 weeks Transport Temperature: Ambient

**Autoclave Monitoring** 

CPT Code: No code Specimen Requirements: BT Sure vials containing Bacillus Price: \$16.22 stearothermophilus are obtained by contacting the Laboratory. Place

the BT Sure vial in center of load to be sterilized, then autoclave using Transport Temperature: Ambient

normal procedures.

Turn Around Time: 2 working days from receipt of specimen.

**Babesia Detection** 

rapid testing options.

CPT Code: 87207 Specimen Requirements: Blood smear Price: \$15.00

Turn Around Time: 1-2 days; positive smears are referred to the Transport Temperature: Ambient

Centers for Disease Control, Atlanta, Georgia for confirmation

Babesia Serology by IFA

CPT Code: 86256 Specimen Requirements: 2 ml. Serum

Price: \$8.11

Referred to the Centers for Disease Control, Atlanta, Georgia

Transport Temperature: Ambient Turn Around Time: 3-6 weeks

**Bacillus anthracis** Culture Isolation/Identification/Rapid Test Methods

Specimen Requirements: Lesion swab, clinical specimen or CPT Code: 87077 (culture ID) Price: \$28.66 culture isolate in Cary-Blair Transport Medium. Call laboratory 87798 (PCR) Price: \$60.00 for special instructions regarding environmental samples and

A suspect B. anthracis culture requires Infectious Disease packaging (Class 6.2) and trackable shipping. Please notify the PHL by telephone at time of shipment.

Turn Around Time: Cultures will be held for 3 days before reporting as negative. Results are telephoned as soon as possible to the submitter. Rapid test methods are available within 6 hours of specimen receipt.

**Bacterial Culture Identification, Aerobic** 

Specimen Requirements: Send non-fastidious Gram negative rods or Gram positive isolates on agar slants or on swab in Cary-Blair Transport Medium. Fastidious or slow growing organisms require careful transport on an enriched agar medium. Please contact the Laboratory prior to submission regarding transport instructions for unusual organisms.

Transport Temperature: Ambient

CPT Code: 87077

Price: \$28.66

Transport Temperature: Ambient

Turn Around Time: Normally 3-14 working days, dependent on the growth rate of the isolate.

**Bacterial Culture Identification, Anaerobic** 

Specimen Requirements: Send isolate in an anaerobic transport CPT Code: 87076 Price: \$30.83 system.

Turn Around Time: 5-7 days, dependent on the growth rate of the Transport Temperature: Ambient

isolate.

# Bartonella sp. (formerly Rochalimaea sp.) Culture Isolation/ Identification

Specimen Requirements: Collect blood in EDTA tube; freeze blood or tissue prior to transport. Send specimen on dry ice.

CPT Code: 87081 Price: \$23.80

Turn Around Time: Negative cultures are monitored for 14 days:

Transport Temperature: Ambient

positive culture results are telephoned to the submitter.

# Bartonella sp. (formerly Rochalimaea sp.) Serology by IFA

Specimen Requirements: 2 ml. Serum, plus completed cat scratch fever disease history form. Contact the Laboratory to obtain a copy of the form, and for more information.

CPT Code: 86256 Price: \$8.11

Transport Temperature: Ambient

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 4-6 weeks

# Biotinidase and Congenital Adrenal Hyperplasia (CAH) Panel

Specimen Requirements: Dried blood spots. See specific instructions on page 43 and the Newborn Screening Practitioner's CPT Code: 82261 and 83498 Price: \$6.50

Manual.

Transport Temperature: Ambient

Referred to the Wisconsin State Newborn Screening Laboratory Turn Around Time: 2 - 3 days. Abnormal results are telephoned to the submitter.

# **Blastomyces sp. Culture Isolation/ Identification** (see Fungal Culture)

#### **Blastomyces sp. Serology** (see Fungal Serology)

# Blood Borne Pathogen Exposure/Source Patient (Hepatitis B Surface Antigen, HIV, Hepatitis C Virus) by EIA

Specimen Requirements: 2 ml. Serum CPT Codes: 87340 (HbsAg) Price: \$17.09

86701 (HIV) Price: \$13.84 Turn Around Time: Routinely batch tested once per week. Positive 86803 (HCV) Price: \$28.66 results are telephoned to the submitter. These tests may be ordered as Total Price: \$59.59

a panel, but are billed individually.

Transport Temperature: Ambient

# Blood Borne Pathogen Exposure - Exposed Worker (Hepatitis B Surface Antibody, HIV,

Hepatitis C Virus) by EIA

CPT Code: 86706 (HBsAb) Price: \$19.25 Specimen Requirements: 2 ml. Serum

86701 (HIV) Price: \$13.84 86803 (HCV) Price: \$28.66 Turn Around Time: Routinely batch tested once per week. Positive Total Price: \$61.75 results are telephoned to the submitter. These tests may be ordered as

a panel, but are billed individually.

Transport Temperature: Ambient

# **Blood Lead** by Anodic Stripping Voltometry

Specimen Requirements: 2 ml. Venous or 0.3 ml. Capillary whole blood, EDTA (purple top). Adult and child specimen collection kits are available through the Laboratory. The Laboratory is certified to test for both child and adult lead levels. See pages 44-45 for collection instructions.

CPT Code: 83655 Price: \$16.22

Transport Temperature: Ambient

Turn Around Time: Routinely batch tested several times per week. Elevated results are telephoned to the submitter.

# Bordetella pertussis Culture Isolation/Identification

Specimen Requirements: Nasopharyngeal (NP) swab in Regan-Lowe transport. Remove the transport medium from the refrigerator and warm to room temperature. Collect specimen. Insert the swab into the transport, cut or break the end off the swab so that the cap can be tightened securely. Put the transport in the zip-lock bag provided. Do not refrigerate transport medium after it has been inoculated. Regan-Lowe is the only transport media acceptable for pertussis cultures.

CPT Code: 87081 Price: \$23.80

Transport Temperature: Ambient

Turn Around Time: Negative cultures are monitored for 7 days; positive culture results may take 3-7 days and are telephoned to the submitter.

# Bordetella pertussis/Bordetella parapertussis Direct Detection by Real Time PCR

Specimen Requirements: Nasal washing or nasopharyngeal swab in a sterile container. Do not submit a throat or nares specimen. See specific instructions on page 40-41.

CPT Code: 83891 (Extraction) and 87798 X 2 (Amp Probe) Price: \$60.00

Turn Around Time: Tested each day of receipt. All results are faxed to the submitter. Positive results are telephoned to the submitter.

Transport Temperature: 2-8°C (nasal wash) Ambient (NP swab)

Note: PCR testing should be performed only on symptomatic patients; a positive PCR in an asymptomatic patient does not meet the standard CDC case definition and cannot be considered a case of pertussis. PCR testing may be able to detect *B. pertussis* 3 - 4 weeks post onset. and after antibiotic therapy has been initiated.

# **Botulism** (see *Clostridium botulinum*)

# Borrelia burgdorferi Culture

Specimen Requirements: Skin punch biopsy, synovial fluid, CSF. Contact the Laboratory prior to collection for special instructions and transport media.

CPT Code: 87081 Price: \$8.11

Transport Temperature: Ambient

Referred to the Centers for Disease Control, Fort Collins, Colorado

#### Borrelia burgdorferi Serology by EIA (reflexed to Western Blot confirmatory testing)

Specimen Requirements: 2 ml. Serum and a completed Lyme Disease report form (see page 52). Date of onset information must be included.

CPT Code: 86618 (screen) Price: \$8.11

Referred to the Centers for Disease Control, Fort Collins, Colorado

Transport Temperature: Ambient

Turn Around Time: 4-6 weeks

# Borrelia hermsii Serology (Tick Borne Relapsing Fever) by EIA

Specimen Requirements: 2 ml. Serum Paired acute and convalescent serum recommended. Date of onset information must be included on requisition form.

CPT Code: 86619 Price: \$8.11

Transport Temperature: Ambient

Referred to the Centers for Disease Control, Fort Collins, Colorado

Turn Around Time: 4-6 weeks

# Brucella sp. Culture Isolation/Identification/Rapid Test Methods

Specimen Requirements: Blood, bone marrow, or tissue submitted in sterile saline or broth. Submit suspect culture isolates on solid medium. *Call the laboratory for special instructions regarding environmental samples and rapid testing options.* 

CPT Code: 87081 Price: \$23.80

Transport Temperature: Ambient

A suspect <u>Brucella sp.</u> culture requires Infectious Disease packaging (Class 6.2) and trackable shipping. Please notify the PHL by telephone at time of shipment.

Turn Around Time: Cultures will be held for 2 weeks before reporting as negative. Results are telephoned as soon as possible to the submitter. Rapid test methods are available within 6 hours of specimen receipt.

# Brucella Serology by Bacterial Agglutination

Specimen Requirements: 2 ml. Serum Paired acute and convalescent serum recommended.

86668 (Tularemia) Price: \$14.87 **Total Price: \$29.74** 

CPT Codes: 86622 (Brucella) Price: \$14.87

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter.

Transport Temperature: Ambient

Note: Tularemia serology will be automatically performed on all requests for Brucella serology due to antigen cross reactivity.

## Burkholderia mallei and B. pseudomallei Culture Isolation/Identification/Rapid Test Methods

Specimen Requirements: Clinical specimen in sterile container or pure culture submitted in Carey-Blair transport or on solid medium. *Call laboratory for special instructions regarding environmental samples and rapid testing options*.

CPT Code: 87081 (culture ID) Price: \$23.80 87798(PCR) Price: \$60.00

Transport Temperature: 2-8°C

A suspect <u>Burkholderia</u> mallei or B. pseudomallei culture requires Infectious Disease packaging (Class 6.2) and trackable shipping. Please notify the PHL at time of shipment.

Turn Around Time: Cultures will be held for 2 weeks before reporting as negative. Results are telephoned as soon as possible to the submitter. Rapid test methods are available within 6 hours of specimen receipt.

# Campylobacter sp. Culture Isolation/Identification

Specimen Requirements: Stool in Cary-Blair Transport, or other commercial enteric transport media.

Transport Temperature: 2-8°C

CPT Code: 87046

Price: \$23.80

Turn Around Time: 2 to 4 days. Positive results are telephoned to the submitter.

#### **CAH** (see Biotinidase/Congenital Adrenal Hyperplasia Panel)

# Candida albicans Culture Isolation/Identification (see Yeast Culture)

## Cat Scratch Fever (see Bartonella sp.)

#### Central Nervous System Virus Culture (see CNS Virus Culture)

#### CH, Congenital Hypothyroidism (see Newborn Screening Panel)

# Chancroid (see Haemophilus ducreyi)

# Chlamydia sp. Culture Isolation/Identification

Specimen Requirements: Specimen in Microtest Transport Media. See specific instructions on page 38.

Turn Around Time: 3 to 6 days; Positive test results are telephoned to the submitter.

Transport Temperature: 2-8°C

CPT Code: 87110

CPT Code: 87491

Price: \$18.93

Price: \$30.50

# Chlamvdia trachomatis Direct Detection by Nucleic Acid Amplification

Specimen Requirements: Endocervical or male urethral swab in APTIMA Uni-Sex Swab Specimen Collection Tube, or urine in APTIMA Urine Specimen Collection Tube. See specific instructions on page 37.

Transport Temperature: 2-30°C

Turn Around Time: Routinely tested each working day. Positive results are telephoned to the submitter.

Note: Can be run in tandem with Neisseria gonorrhoeae Direct Detection by APTIMA Amplification (see Combination Amplification Test below).

# Chlamydia trachomatis/Neisseria gonorrhoeae Direct Detection by Nucleic Acid Amplification (Combination Amplification Test)

Specimen Requirements: Endocervical or male urethral swab in APTIMA Uni-Sex Swab Specimen Collection Tube, or urine in APTIMA Urine Specimen Collection Tube. See specific instructions on page 37.

CPT Codes: 87491(Chlam) Price: \$18.93 87591(GC) Price: \$18.93 Total Price: \$37.86

Turn Around Time: Routinely tested each working day. Positive results are telephoned to the submitter. These tests can be ordered as a panel, but will be billed individually.

Transport Temperature: 2-30°C

# Cholera (see Vibrio Culture Isolation/ Identification)

## Citrullinemia (See Aminoacidopathies)

#### Clostridium botulinum Bacterial Identification, Toxin, and Serology Testing

Consultation with Laboratory required prior to referral.

CPT Code: None Price: No cost\*

CPT Code: 87324

Price: \$21.20

Specimen Requirements: Suspect food, 10 ml. Serum, and 25 gm. Stool. Call the Laboratory for consultation on sending specimens and to make arrangements for receiving antitoxin.

Transport Temperature: Contact Laboratory

Referred to the Utah State Public Health Laboratory in Salt Lake City, UT.

Turn Around Time: Preliminary results in 2-4 days.

#### Clostridium difficile Toxin A & B Test by EIA

Specimen Requirements: Submit at least one milliliter of raw stool in a sterile container. Freeze the specimen.

Turn Around Time: 1 - 2 days; Positive test results are telephoned to Transport Temperature: 2-8°C

the submitter.

# Clostridium sp. (except C. botulinum) Culture Isolation/ Identification (see Bacterial Culture, Anaerobic)

#### **CMV** (see Cytomegalovirus)

# Central Nervous System (CNS) Virus Culture Isolation/Identification

Specimen Requirements: CSF or Central Nervous System specimen in Microtest Transport Media, received within 48 hours of collection. See specific instructions on page 39.

Transport Temperature: 2-8°C

CPT Code: 87252

Price: \$30.50

Turn Around Time: Positive results are telephoned to the submitter. Cultures are monitored for 2 weeks prior to a negative report.

**NOTE:** CNS specimens for virus isolation are screened for the presence of the following commonly isolated viruses: Herpes Simplex Virus, Enterovirus (including Echovirus and Coxsackie A & B) and Adenovirus

# Coccidioidomyces sp. Culture Isolation/ Identification (see Fungal Culture)

# Coccidioidomycosis Serology (see Fungal Serology)

## Colorado Tick Fever Virus Serology, IgG by Indirect Immunofluorescence

Specimen Requirements: 2 ml. Serum

CPT Code: 86790 (CTFV) Price: \$16.44

Paired acute and convalescent serum recommended.

86757 (RMSF) Price: \$16.44

Total Price: \$32.88

CPT Code: 87081

Price: \$23.80

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter.

Transport Temperature: Ambient

NOTE: Rocky Mountain Spotted Fever testing will automatically be performed on all requests for Colorado Tick Fever.

# Congenital Adrenal Hyperplasia (see Biotinidase/CAH Panel)

# Congenital Hypothyroidism (see Newborn Screening Panel)

#### Corynebacterium diphtheriae Culture Isolation/ Identification

Specimen Requirements: Throat swab in silica gel or Cary Blair transport medium, or pure culture.

Transport Temperature: Ambient

Turn Around Time: 4 to 7 days. Positive results are telephoned to the submitter.

# Corynebacterium sp., not C. diphtheriae Culture Isolation/ Identification

(see Bacterial Culture, Aerobic)

# Coxiella bruneti Serology (see Q fever Serology)

# Cryptococcus sp. Culture Isolation/ Identification (see Yeast Culture)

## **Cryptosporidium / Cyclospora Detection** by Fluorescent Stain

Specimen Requirements: Stool in formalin

CPT Code: 87206

Price: \$22.93

Turn Around Time: Performed each working day. Positive results are telephoned to the submitter.

Transport Temperature: Ambient

# **Culture for Storage**

Specimen Requirements: Isolate in Cary Blair Transport or on agar plate or slant. Submit organisms that are of epidemiologic interest and need to be stored for molecular comparison to other strains. Laboratories are encouraged to submit organisms which may be part of an outbreak or which demonstrate a significant antibiotic resistance, i.e. Salmonella sp., E. coli O157, Toxigenic E. coli, Shigella sp., N. gonorrhoeae, resistant Streptococcus pneumoniae, MRSA, VRE and ESBL.

CPT Code: None Price: No cost Transport Temperature: Ambient

# Cystic Fibrosis Screen Detection of IRT (Immunoreactive Trypsinogen) by Fluorometry

Specimen Requirement: Dried blood spots. See specific instructions on page 43 and the Newborn Screening Practitioners Manual.

CPT Code: 83516 Price: \$9.88

Transport Temperature: Ambient Turn Around Time: 2-5 days. Positive results are telephoned to the

submitter.

Cysticercosis (*Taenia sp.*) Detection

CPT Code: 87207 Specimen Requirements: Stained tissue section

Price: \$8.11

Referred to the Centers for Disease Control, Atlanta, Georgia

Transport Temperature: Ambient Turn Around Time: 2-4 weeks

Cysticercosis (*Taenia sp.*) Serology by Immunoblot

Specimen Requirements: 2 ml. Serum CPT Code: 84182

Price: \$8.11

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 3-6 weeks Transport Temperature: Ambient

Cytomegalovirus Culture Isolation/Identification

(Traditional Cell Culture and Rapid Spun Vial Technology)

CPT Code (Culture): 87252 Price: Specimen Requirements: Urine, BAL, or Bronchial Washings in \$30.50

Microtest Transport Media, Heparinized Blood, Biopsies, received within 48 hours of collection. See specific instructions on page 39.

Transport Temperature: 2-8°C

Turn Around Time: Positive results are telephoned to the submitter. Cultures are monitored for 1 month before reporting as negative. Cultures of tissue samples are monitored for 2 months prior to a negative report.

Cytomegalovirus IgG Serology by EIA

CPT Code: 86644 Specimen Requirements: 2 ml. Serum

Price: \$16.44 Screen or paired acute and convalescent specimens

Transport Temperature: Ambient Turn Around Time: Routinely batch tested once per week. Significant

results are telephoned to the submitter.

Cytomegalovirus IgM Serology by Capture EIA

CPT Code: 86645 Specimen Requirements: 2 ml. Serum Price: \$29.53

Screen or paired acute and convalescent specimens

Transport Temperature: Ambient Turn Around Time: Testing performed each working day. Significant

results are telephoned to the submitter.

# **Dengue Fever Serology** by ELISA

Specimen Requirements: 2 ml. Serum

CPT Code: 86790

Price: \$8.11

Referred to the Centers for Disease Control, San Juan, Puerto Rico

Turn Around Time: 4-6 weeks

Transport Temperature: Ambient

# **Dermatophytes Culture Isolation/ Identification** (see Fungal Culture)

# **Diphtheria** (see Corynebacterium diphtheriae)

## **DNA Fingerprinting** (see Pulsed Field Gel Electrophoresis)

#### **Echinococcosis Detection**

Specimen Requirements: Stained tissue section CPT Code: 87207

Price: \$8.11

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 1-3 weeks

Transport Temperature: Ambient

## Echinococcosis Serology by EIA

Specimen Requirements: 2 ml. Serum

Price: \$8.11

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 2-4 weeks

Transport Temperature: Ambient

# EHEC, Enterohemorrhagic E. coli (See Escherichia coli Shiga-Like Toxin Assay)

# Ehrlichia sp. Serology by Indirect Immunofluorescence

Specimen Requirements: 2 ml. Serum

Price: \$8.11

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 3-4 weeks

Transport Temperature: Ambient

#### Entameba histolytica Serology by EIA

Specimen Requirements: 2 ml. Serum Include documentation of negative stool examinations for *E. histolytica*.

CPT Code: 86753

Price: \$8.11

Referred to the Centers for Disease Control, Atlanta, Georgia

Transport Temperature: Ambient

Turn Around Time: 3-6 weeks

# **Enteric Panel Culture Isolation/ Identification** (includes detection of *Salmonella, Shigella, Campylobacter*, and *E. coli* O157)

Specimen Requirements: Stool in Cary-Blair transport, or other commercial enteric transport media. Collect stool directly from patient into a clean specimen container. Do not collect from toilet bowl or use stool contaminated with urine. Use a sterile swab to collect a portion of the stool (collect from bloody or mucous-containing areas if present) and insert swab to the lower part of a Cary-Blair transport tube and break or cut the swab stick. A rectal swab is also acceptable if there is evidence of fecal staining on the swab. Cary-Blair transport tubes are supplied upon request.

Turn Around Time: 2 to 4 days; Positive test results are telephoned to the submitter.

CPT Codes: 87045 (Salm & Shig) Price: \$14.33 87046 (Campy & E. coli) Price: \$14.33

Total Price: \$28.66

Transport Temperature: 2-8°C

#### **Enteric Culture Surveillance**

Specimen Requirements: All isolates of toxin producing *Escherichia coli* (including serotype O157:H7), *Salmonella* spp. and *Shigella* spp. should be referred for surveillance purposes. PFGE testing (DNA fingerprinting) will be performed to determine strain-relatedness; these results are compared to other strain patterns in Montana and across the nation using the CDC PulseNet database. Results are communicated to the DPHHS Epidemiology staff for follow up.

CPT Code: none Price: none

CPT Code: 87252 Price: \$30.50

Transport Temperature: Ambient

Turn Around Time: Routinely tested each week.

# Enterovirus Culture (see Enteric Virus Culture)

#### Enteric Virus Culture Isolation/Identification

Specimen Requirements: Stool or Rectal Swab in Microtest Transport Media, received within 48 hours of collection. See specific instructions on page 39.

Transport Temperature: 2-8°C

Turn Around Time: Positive results are telephoned to the submitter. Cultures are monitored for 2 weeks prior to a negative report.

**NOTE:** Enteric specimens for virus isolation are screened for the following commonly isolated viruses: Enterovirus (including Echovirus and Coxsackie A & B), Adenovirus, Herpes Simplex Virus

# Enterovirus (Pan-Enterovirus) Detection by Nucleic Acid Amplification Testing

Specimen Requirements: Nasal washings, CSF, or stool in sterile transport container, or throat swab or rectal swab in Microtest Transport Medium. See specific instructions on page 40-41.

CPT Code: 83891 (Extraction) and 87798 (Amp Probe) Price: \$60.00

Transport Temperature: 2-8°C

Turn Around Time: 1-3 days. Results are telephoned to the submitter.

# ESBL (see Antimicrobial Resistant Bacteria Confirmation)

#### Escherichia coli O157 Culture Isolation/Identification

Specimen Requirements: Stool specimen in Cary-Blair Transport
Medium, or other commercial enteric transport media, or culture isolate.

For public health surveillance, please submit all isolates of <u>E. coli</u> O157 to the Montana Public Health Laboratory. See Enteric Culture Surveillance.

Transport Temperature: 2-8°C

Turn Around Time: 2 - 4 days. Positive results are telephoned to the

# Escherichia coli Shiga-Like Toxin Assay (Enterohemorrhagic E. coli, EHEC or STEC) by EIA

Specimen Requirements: Stool specimen in Cary-Blair Transport Medium, or other commercial enteric transport media, or *Escherichia coli* isolate.

CPT Code: 87449 Price: \$21.20

CPT Code: 87081

Price: \$23.80

Transport Temperature: 2-8°C

Turn Around Time: 1 to 4 days. Positive results are telephoned to the submitter. Stools with positive toxin tests will be further cultured to isolate and identify the toxin-producing organism.

**Exanthem Serology Panel, IgG only** (Rubeola, Rubella, Herpes Simplex Virus, Varicella Zoster Virus, Colorado Tick Fever Virus (during tick season), and Rocky Mountain Spotted Fever (during tick season) by EIA, IFA

Specimen Requirements: 2 ml. Serum

CPT Codes: 86765 (Meas) Price: \$16.44

Paired acute and convalescent serum recommended. Date on onset of rash must be included on requisition form.

86762 (Rub) Price: \$16.44

86695 (HSV1) Price: \$16.44

86696 (HSV2) Price: \$16.44

Turn Around Time: Routinely batch tested once per week. Significant results are telephoned to the submitter. These tests may be ordered as 86790 (CTFV) Price: \$16.44

results are telephoned to the submitter. *These tests may be ordered as a panel, but will be billed individually.*86790 (CTFV) Price: \$16.44
86757 (RMSF) Price: \$16.44

Total Price: \$115.08

**NOTE:** Tick season is normally March through September.

**Exanthem Panel, IgG + IgM** (Rubeola IgG + IgM, Rubella IgG + IgM, Herpes Simplex Virus, Varicella (Herpes) Zoster Virus, Colorado Tick Fever Virus and Rocky Mountain Spotted Fever (during tick season) by FIA\_IFA\_cFIA

Varicella (Herpes) Zoster Virus, Colorado Tick Fever Virus and Rocky Mountain Spotted Fever (during tick season) by EIA, IFA, cEIA

Specimen Requirements: 2 ml. Serum

Paired aguste and correspond server recommended.

86765 (Meas IgM) Price: \$16.44

Paired acute and convalescent serum recommended.

Date on onset of rash must be included on requisition form.

Turn Around Time: Routinely batch tested once per week. IgM testing performed each working day, as needed. Significant results are telephoned to the submitter. These tests may be ordered as a panel, but will be billed individually.

86762 (Rub IgG) Price: \$16.44
86762 (Rub IGM) Price: \$16.44
86695 (HSV1) Price: \$16.44
86696 (HSV2) Price: \$16.44
86787 (VZV) Price: \$16.44

NOTE: Tick season is normally March through September.

Total Price: \$147.96

Transport Temperature: Ambient

# Fatty Acid Oxidation /Organic Acidemias (see Acylcarnitine Profile)

# Fluorescent Treponemal Antibody (FTA-ABS) by Indirect Immunofluorescence

Specimen Requirements: 2 ml. Serum

CPT Code: 86781

Price: \$26.72

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter.

Transport Temperature: Ambient

#### Francisella tularensis Culture Isolation/Identification/Rapid Test Methods

Specimen Requirements: Clinical specimen in sterile container or pure culture submitted in Carey-Blair transport or on solid medium. *Call laboratory for special instructions regarding environmental samples and rapid testing options.* 

A suspect  $\underline{F}$ . <u>tularensis</u> culture requires Infectious Disease packaging (Class 6.2) and trackable shipping. Please notify the PHL at time of shipment.

Turn Around Time: Cultures will be held for 2 weeks before reporting as negative. Results are telephoned as soon as possible to the submitter. Rapid test methods are available within 6 hours of specimen receipt.

· /

CPT Code: 87081 (culture ID) Price: \$23.80

Transport Temperature: 2-8°C

87798 (PCR): \$60.00

Transport Temperature: Ambient

86757 (RMSF) Price: \$16.44

#### Francisella tularensis Serology by Bacterial Agglutination

Specimen Requirements: 2 ml. Serum

Paired acute and convalescent specimens recommended.

(Brucella): 86622 Price: \$14.87

CPT Code (Tule): 86668 Price: \$14.87

Transport Temperature: Ambient

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter.

NOTE: Brucella serology testing will be automatically performed on all requests for Tularemia serology due to antigen cross reactivity.

# Fungal Culture Isolation/Identification

Specimen Requirements: Send original specimens in a sterile container. Send cutaneous specimens dry. Send fungal isolates on an agar slant. See specific instructions on page 36.

Turn Around Time: Primary specimen cultures are monitored for 4 weeks

prior to a negative report.

CPT Codes: 87101 (skin) 87103 (blood)

> 87102 (other) 87106 (definitive ID) Price: \$30.46 each

Transport Temperature: Ambient

# Fungal Serology (Histoplasmosis, Coccidioidomycosis, Blastomycosis) by CF & Agar Gel

CPT Code: 86698 (Histo), 86612 Specimen Requirements: 2 ml. Serum

(Blasto), 86635 (Cocci)

Price: \$8.11

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 3-6 weeks

Transport Temperature: Ambient

#### Galactosemia (see Newborn Screening Panel)

#### Gardnerella vaginalis Culture Isolation/Identification (see Bacterial Culture, Aerobic)

#### **Giardia Detection** (see Ova and Parasite Exam)

#### **Gonococcal Infections** (see *Neisseria gonorrhoeae*)

#### Group A Streptococcus Screen (see Streptococcus Screen for Group A)

#### Haemophilus ducreyi Culture Isolation/ Identification

Specimen Requirements: Saline or broth moistened swab from the base and undetermined margins of the chancroid lesion, smeared and sent on chocolate plate or placed in Cary-Blair transport.

Transport Temperature: Ambient

Turn Around Time: Negative cultures are monitored for 14 days; positive culture results are telephoned to the submitter.

# Haemophilus influenzae Culture Isolation/ Identification

Specimen Requirements: primary specimen or isolate on MTM or chocolate media.

CPT Code: 87077 Price: \$28.66

CPT Code: 87081

Price: \$23.80

Turn Around Time: 2 - 4 days; Positive H. influenzae results from sterile sites are telephoned to the submitter.

Transport Temperature: Ambient

**NOTE:** Serogrouping is routinely performed on *H. influenzae* isolates from sterile body sites such as blood or cerebral spinal fluid.

# Haemophilus sp. Culture Isolation/ Identification (see Bacterial Culture, Aerobic)

# Hantavirus (Sin Nombre Virus) IgG + IgM Serology by EIA, capture EIA

Specimen Requirements: 2 ml. Serum CPT Code: 86790 x 2 Price: \$37.00

Total Price: \$74.00

Turn Around Time: Routinely batch tested once per week. Testing is available each working day, or on weekends and holidays as needed. Call ahead to notify the Laboratory and to make arrangements. Positive and STAT results are telephoned to the submitter.

Transport Temperature: Ambient

To qualify for *STAT* testing, <u>all</u> of the following criteria must be met:

- 1. The patient is hospitalized with an acute respiratory illness, typical of hantavirus pulmonary syndrome (HPS).
- 2. The patient is critically ill.
- 3. The patient does not have any relevant underlying medical condition that could account for the symptoms (COPD, malignancy, immunosuppression, diabetes)
- 4. The onset of illness (date when prodromal symptoms such as low grade fever and myalgia were noted) is 3 or more days prior to serum sample collection. IgM antibody to SNV is usually not detectable until the patient develops shortness of breath.

# **HCV** (See Hepatitis C Screen)

# Hemoglobinopathy Screen by Isoelectric Focusing

Specimen Requirements: Dried blood spots. See specific instructions on page 43 and the Newborn Screening Practitioner's Manual.

Turn Around Time: 2 - 5 days. Abnormal results are telephoned to the submitter, then referred to the New Mexico Scientific Laboratory Division for HPLC confirmation.

Transport Temperature: Ambient

# Hepatitis, Acute Panel by EIA (Hepatitis A IgM Antibody, Hepatitis B Surface Antigen,

Hepatitis B Core IgM Antibody, Hepatitis C Antibody)

Specimen Requirements: 2 ml. Serum

CPT Code: 80074

Price: \$95.75

CPT Code: 83020

Price: \$8.17

Turn Around Time: Testing is routinely batch tested once per week, but may be available each working day as needed. Call ahead to notify the Laboratory and to make arrangements if immediate testing is needed. Positive and STAT results are telephoned to the submitter.

Transport Temperature: Ambient

# Hepatitis A IgM Antibody by EIA

Specimen Requirements: 2 ml. Serum

CPT Code: 86709

Price: \$25.00

Turn Around Time: Testing is routinely batch tested once per week, but may be available each working day as needed. Call ahead to notify the Laboratory and to make arrangements if immediate testing is needed. Positive and STAT results are telephoned to the submitter.

Transport Temperature: Ambient

# Hepatitis B Core IgM Antibody by EIA

Specimen Requirements: 2 ml. Serum

CPT Code: 86705

Price: \$25.00

Turn Around Time: Testing is routinely batch tested once per week, but may be available each working day as needed. Call ahead to notify the Laboratory and to make arrangements if immediate testing is needed. Positive and STAT results are telephoned to the submitter.

Transport Temperature: Ambient

Hepatitis B Core Total Antibody by EIA

Specimen Requirements: 2 ml. Serum

CPT Code: 86704

Prior: \$28.66

Price: \$28.66

Turn Around Time: Testing is routinely batch tested once per week.

Positive results are telephoned to the submitter.

Transport Temperature: Ambient

**Hepatitis B Surface Antibody** by EIA (Quantitation)

Specimen Requirements: 2 ml. Serum

CPT Code: 86706

Price: \$19.25

Turn Around Time: Testing is routinely batch tested once per week.

Transport Temperature: Ambient

Hepatitis B Surface Antigen by EIA

Specimen Requirements: 2 ml. Serum

Price: \$17.09

Transport Temperature: Ambient

For RIBA confirmation

See specific listing below

See specific listing below

Transport Temperature: Ambient

For HCV RNA confirmation

Transport Temperature: 2-8°C

Turn Around Time: Routinely batch tested once per week. Call ahead to notify the Laboratory and to make arrangements if immediate testing is needed. Positive and STAT results are telephoned to the submitter.

**NOTE:** Confirmatory Neutralization testing will be automatically performed on all repeat reactive screens.

Hepatitis C (HCV) Antibody Screen by EIA with reflex Confirmation

Specimen Requirements: 2 ml. Serum CPT Code (screen); 86803 Price; \$28.66

Turn Around Time: EIA screens routinely batch tested twice per week. Confirmatory testing is performed as needed. Positive results are telephoned to the submitter.

**NOTE:** Reflex confirmatory testing (RIBA or HCV RNA) is performed on all repeat reactive EIA screens with Signal/CutOff (S/CO) ratio <3.8. Confirmatory testing is not necessary on specimens with S/CO ratios of 3.8 or greater as the confirmation rate on these specimens is >95%.

Hepatitis C (HCV) Genotyping

Specimen Requirements: 2 ml. Serum. Hepatitis C RNA testing must be performed prior to genotyping.

CPT Code: 87902
Price: \$127.00

Referred to the Contra-Costa County Public Health Laboratory,

Transport Temperature: 2-8°C

Martinez, California

Turn Around Time: 2 to 4 weeks

Hepatitis C (HCV) RNA Testing, Quantitative, by Reverse Transcriptase-PCR

Specimen Requirements: 2 ml Serum. Serum must be separated from the red cells within 6 hours of collection. Transport in a cold condition using ice packs in an insulated container. Specimens must be received within 72 hours of collection.

CPT Code: 87522
Price: \$101.92

Transport Temperature: 2-8°C

Turn Around Time: Routinely batch tested every two weeks.

# Hepatitis C (HCV) Antibody Confirmation, by RIBA

This test may be done in instances when a confirmatory specimen for HCV RNA Quantitative PCR testing cannot be obtained.

Transport Temperature: Ambient Specimen Requirements: 2 ml Serum.

Referred to the Centers for Disease Control in Atlanta.

Turn Around Time: 3-6 weeks.

#### Herpes Simplex Virus, Type 1 and 2 Culture Isolation/Identification

Specimen Requirements: Specimen in Microtest Transport Media, received within 48 hours of collection. See specific instructions on page 39.

(Identification) 87140 Price: \$9.52

Transport Temperature: 2-8°C

CPT Code: (Culture) 87252 Price: \$20.00

CPT Code: 86804

Price: \$8 11

Turn Around Time: Positive results are telephoned to the submitter: cultures are monitored for 7 days prior to a negative report.

### Herpes Simplex Virus, Type 1 and 2, IgG Serology by type specific EIA

CPT Code: 86695 (HSV 1) Price: \$16.44 Specimen Requirements: 2 ml. Serum 86696 (HSV 2) Price: \$16.44 Screen or paired acute and convalescent specimens Total Price: \$32.88

Turn Around Time: Routinely batch tested once per week. Significant results are telephoned to the submitter.

Transport Temperature: Ambient

# Herpes Simplex Virus, Type 1 and 2, Direct Detection by Real Time PCR

Specimen Requirements: CSF, Cervical Swab or Lesion swab in Microtest Transport Media plus an additional lesion swab transported dry in a sterile container. See special instructions on page 40-41.

CPT Code: 83891 (Extraction) and 87529 (Amp Probe) Price: \$60.00

Transport Temperature: 2-8°C

Turn Around Time: 1 - 3 days. Results are telephoned to the submitter.

#### Herpes Zoster Virus Culture (See Varicella Zoster Virus Culture)

# Herpes Zoster Virus IgG Serology by EIA (See Varicella Zoster Virus Serology)

#### **Histoplasma Culture Isolation/ Identification** (see Fungal Culture)

#### **Histoplasma Serology** (see Fungal Serology)

## HIV – 1 / 2 Antibody (EIA screen with reflex Western Blot Confirmation)

CPT Code: 86703 (screen) Price: \$13.84 Specimen Requirements: 2 ml. Serum

86689 (blot) Price: \$96.00

Turn Around Time: EIA screens routinely tested several days each week; Western Blots performed as needed. Positive results are telephoned to the submitter.

Transport Temperature: Ambient

**NOTE:** Reflex confirmatory Western Blot testing is performed on all repeat reactive EIA screens.

#### **HIV - 1 Antigen** by EIA

CPT Code: 87390 Specimen Requirements: 2 ml. Serum

Price: \$8.11

Transport Temperature: Ambient Turn Around Time: 4-6 weeks

Referred to the Centers for Disease Control, Atlanta, Georgia

# Homocystinuria by Tandem Mass Spectroscopy (MS/MS) (See Aminoacidopathies by MS/MS)

## **Influenza A and B Culture** (See Respiratory Virus Culture)

#### **Influenza A Virus Direct Detection** by Real Time PCR

Specimen Requirements: Respiratory specimen in Microtest Transport Media. See specific instructions on page 40-41.

This test detects all subtypes of Influenza A, including H5 Avian Influenza.

Turn Around Time: 1-3 days. Results are telephoned to the submitter.

Transport Temperature: 2-8°C

#### Influenza B Virus Direct Detection by Real Time PCR

Specimen Requirements: Respiratory specimen in Microtest Transport Media. See specific instructions on page 40-41.

Turn Around Time: 1-3 days. Results are telephoned to the submitter.

CPT Code:87798 Price: \$60.00

Price: No cost\*

CPT Code: 87798

Price: \$60.00

Transport Temperature: 2-8°C

## **Influenza A Isolate Subtyping** by IFA or Real Time PCR

Specimen Requirements: Influenza A isolate in cell culture fluid or nucleic acid from a PCR specimen. Reflex testing is performed on all Influenza A positive specimens.

Transport Temperature: 2-8°C

Turn Around Time: Subtyping is performed each working day. Results are telephoned to the submitter.

#### **Influenza Isolate Characterization**

Specimen Requirements: Influenza A isolate in cell culture fluid. The Montana Public Health Laboratory routinely selects significant isolates for characterization.

Price: No cost\*

Transport Temperature: 2-8°C

Referred to the Centers for Disease Control, Atlanta, Georgia Turn Around Time: 6-8 weeks

# IRT (Immunoreactive Trypsinogen) see Cystic Fibrosis Screen

# Lead Testing (see Blood Lead)

# Legionella sp. Culture Isolation/ Identification

Specimen Requirements: Submit fresh or frozen lung tissue, pleural fluid, bronchial washings, trans-tracheal aspirates, chest drainage, B.A.L., or sputum. Put a minimum of 1 ml specimen in a sterile, leak-proof container, and transport on ice in an insulated container.

Transport Temperature: 2-8°C

CPT Code: 87081

Price: \$23.80

Turn Around Time: DFA test performed each working day. Positive test results are telephoned to the submitter. Cultures are monitored for 14 days before reporting as negative.

**NOTE:** Both a DFA test and culture is performed on each primary specimen received.

<sup>\*</sup>Testing is performed at no cost for epidemiological purposes.

<sup>\*</sup>Testing is performed at no cost for epidemiological purposes.

# Legionella pneumophila Groups 1-6 Direct Fluorescent Detection

Specimen Requirements: Nasopharyngeal (NP) or Throat swab smeared on microscope slide, or primary specimen as above.

Turn Around Time: Performed each working day. Positive results are telephoned to the submitter.

Transport Temperature: Ambient

CPT Code: 87278

Price: \$19.03

# Legionella pneumophila Groups 1-4 IgG Serology by Indirect Immunofluorescence

Specimen Requirements: 2 ml. Serum

CPT Code: 86713

Paired acute and convalescent serum recommended (drawn approx. 4
Price: \$16.44

Paired acute and convalescent serum recommended (drawn approx. 4-6 weeks apart).

Transport Temperature: Ambient

Turn Around Time: Routinely batched tested once per week. Positive

#### **Leishmania Detection**

Specimen Requirements: Lesion smear of tissue CPT Code: 87207

Price: \$8.11

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 3-6 weeks

Transport Temperature: Ambient

# Leishmania Serology by IFA

Specimen Requirements: 2 ml. Serum CPT Code: 86717

Price: \$8.11

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 3-6 weeks

Transport Temperature: Ambient

# Leptospira Serology by INDX Dip-S-Ticks or IgM EIA

Specimen Requirements: 2 ml. Serum

CPT Code: 86720

Paired acute and convalescent serum are recommended.

Price: \$8.11

Referred to the Centers for Disease Control, Atlanta, Georgia

Transport Temperature: Ambient

Turn Around Time: 3-6 weeks

#### Listeria Culture Isolation/ Identification (see Bacterial Culture, Aerobic)

#### Lyme Disease Culture (see Borrelia burgdorferi culture)

#### Lyme Disease Serology (see *Borrelia burgdorferi* serology)

# Lymphogranuloma venereum (LGV) Culture (see Chlamydia Culture)

# Malaria Detection/ Identification (see Plasmodium Detection)

#### Malaria Serology (see Plasmodium Serology)

# Maple Syrup Urine Disease (See Aminoacidopathies by MS/MS)

#### Measles Serology (see Rubeola Serology)

#### Measles Culture (see Rubeola Culture)

#### **Meningococcal Infection** (see *Neisseria meningitidis* Culture)

# Metapneumovirus (Human) Direct Detection by Real Time PCR

Specimen Requirements: Respiratory specimen in Microtest Transport Media. See specific instructions on page 40-41.

Turn Around Time: 1 - 3 days. Results are telephoned to the submitter.

Price: \$60.00

CPT Code: 87798

Transport Temperature: 2-8°C

# **Methicillin Resistant** *Staphylococcus aureus* (MRSA) (see Antimicrobial Resistant Bacteria Confirmation)

#### **Modified Acid Fast Stain**

Specimen Requirements: Send specimens in sterile container. Add sterile saline or broth to tissues or other non-liquid specimens. Send isolates on LJ medium.

CPT Codes: 87206 (stain) Price: \$11.46

Transport Temperature: Ambient

Turn Around Time: 1-2 days. Positive results will be called to the submitter.

# **Mold Culture Isolation/ Identification (see Fungal Culture)**

## MRSA (see Antimicrobial Resistant Bacteria Confirmation)

#### MS/MS (see Acylcarnitine Profile)

# **Mumps Culture Isolation/Identification**

Specimen Requirements: Saliva, Urine in Microtest Transport Media, received within 48 hours of collection. See specific instructions on page 39.

Price: \$30.50

CPT Code: 87252

Transport Temperature: 2-8°C Turn Around Time: Positive results are telephoned to the submitter.

# Mumps IgG Serology by EIA

Specimen Requirements: 2 ml. Serum Screen or paired acute and convalescent specimens

Cultures are monitored for 2 weeks prior to a negative report.

CPT Code: 86735 Price: \$16.44

Turn Around Time: Routinely batch tested once per week. Positive Transport Temperature: Ambient results are telephoned to the submitter.

# **Mumps IgM Serology** by IFA Specimen Requirements: 2 ml. Serum

CPT Code: 86735 Price: \$8.11

Referred to the North Dakota State Public Health Laboratory.

Turn Around Time: Positive results are telephoned to the submitter.

Transport Temperature: Ambient

# Mycobacterium sp. Culture Isolation/ Identification

Specimen Requirements: Send specimens in sterile container. Add sterile saline or broth to tissues or other non-liquid specimens. Send isolates on LJ medium or in BACTEC or MB/BacT vials. See specific instructions on page 35.

Turn Around Time: Smear reports are faxed to submitter by 5 p.m. the same day specimen is processed. Positive results are telephoned to the submitter, cultures are monitored for 6 weeks prior to negative report.

After a patient has tested positive for *M. tuberculosis*, no more than three specimens per week from the same body site will be processed to determine response to therapy and infectious status, without prior consultation. To determine response to therapy, specimens should be obtained no sooner than 7 days post initiation of therapy.

CPT Codes: 87206 (stain) Price: \$11.46 87015 (concentration) Price: \$9.59 87116 (culture) Price: \$17.01 **Total Price: \$38.06** 

Transport Temperature: Ambient

# Mycobacterium sp. Identification by Nucleic Acid Probe

Specimen Requirements: Isolates sent on LJ slants or in BACTEC or MB/BacT vials, or as reflex testing on positive primary specimens submitted as above.

Turn Around Time: 1-3 days for submitted culture, others dependent on growth rate.

On initial isolation of an AFB from a new patient, both *M. tuberculosis complex* and *M. avium complex* probes will be run on the isolate. After *M. tuberculosis complex* has been confirmed in the patient, subsequent cultures received during the next 6 weeks will only be probed for *M. tuberculosis complex*.

CPT Code: 87555 (M. tb probe) 87560 (M. avium probe) 87550 (M. gordonae or M. kansasii probe) Price: \$19.03 each

Transport Temperature: Ambient

# Mycobacterium tuberculosis complex Antimicrobial Susceptibility Testing

Specimen Requirements: Isolates sent on LJ slants or in BACTEC or MB/BacT vials, or primary specimens submitted as above. Reflex testing is performed on *Mycobacterium tuberculosis* complex isolates identified in this laboratory.

Agents tested: Isoniazid, Rifampin, Ethambutol, Streptomycin and PZA.

Turn Around Time: 7 to 14 days from date susceptibility testing is begun.

Susceptibility testing for *M. tuberculosis* will be performed only on the first isolate from the patient, and will be repeated on subsequent isolates from specimens received 2 months after the initial specimens. Other susceptibility testing may be performed upon consultation.

Transport Temperature: Ambient

CPT Code: 87190 x 5

Price: \$60.00

CPT Code: 87556

Transport Temperature: Ambient

Price: \$145.60

# Mycobacterium tuberculosis complex Direct Detection by Nucleic Acid Amplification

Specimen Requirements: Primary respiratory specimen or concentrated specimen. See specific instructions on page 35.

Turn Around Time: 1-3 days. Call ahead to make arrangements for testing.

The submitter of a AFB smear positive respiratory specimen will be contacted by the PHL and offered the direct nucleic acid amplification test for *M.tuberculosis complex* (MTD Test).

# Mycology Culture (see Fungal Culture)

# Neisseria gonorrhoeae Culture Isolation/ Identification

Specimen Requirements: Primary culture or isolate on MTM or chocolate media; identification performed by Nucleic Acid Probe.

Turn Around Time: 2-3 days. Positive results are telephoned to the submitter.

Transport Temperature: Ambient

CPT Code: 87081

CPT Code: 87591

Price: \$18.93

Price: \$23.80

For public health surveillance, please submit all confirmed *N. gonorrhoeae* isolates to the Montana Public Health Laboratory. This

is at no cost to the submitter (See Culture for Storage).

# Neisseria gonorrhoeae Direct Detection by Nucleic Acid Amplification

Specimen Requirements: Endocervical or male urethral swab in APTIMA Uni-Sex Swab Specimen Collection Tube, **or** urine in APTIMA Urine Specimen Collection Tube. See specific instructions on page 37.

Transport Temperature: 2-30°C

Turn Around Time: Routinely tested each working day. Positive results are telephoned to the submitter.

Note: Can be run in tandem with *Chlamydia trachomatis* Direct Detection by Amplification (see Combination Amplification Test).

# *Neisseria gonorrhoeae/Chlamydia trachomatis* **Direct Detection** by Nucleic Acid Amplification (Combination Amplification Test)

Specimen Requirements: Endocervical or male urethral swab in APTIMA Uni-Sex Swab Specimen Collection Tube, **or** urine in APTIMA Urine Specimen Collection Tube. See specific instructions on page 37.

CPT Codes: 87591 (GC) Price: \$18.93 87491 (Chlam) Price: \$18.93 **Total Price: \$37.86** 

Transport Temperature: 2-30°C

Turn Around Time: Routinely tested each working day. Positive results are telephoned to the submitter. *These tests can be ordered as a panel, but will be billed individually.* 

# Neisseria sp. (including N. meningitidis) Culture Isolation/Identification

Specimen Requirements: Primary specimen or isolate on MTM or chocolate media

CPT Code (typing): 87147 Price: \$23.80

Turn Around Time: 2 - 4 days; Positive *N. meningitidis* results are telephoned to the submitter.

Transport Temperature: Ambient

**NOTE:** Serogrouping is routinely performed on *N. meningitidis* isolates from sterile body sites such as blood or cerebral spinal fluid.

# **Newborn Screening Panel** (Phenylketonuria, Galactosemia, Congenital Hypothyroidism (T4), Hemoglobinopathy).

Specimen Requirements: Dried blood spots. See specific instructions on page 43 and the Newborn Screening Practitioner's Manual.

CPT Codes: 84030 (PKU) Price: \$10.19

82775 (Gal) Price: \$11.10 84437 (T4) Price: \$9.88 83020 (Hgb) Price: \$8.17

Turn Around Time: 2 - 5 days. Abnormal results are telephoned to the submitter. *These tests may be ordered as a panel, but will be billed individually.* 

Total Price: \$39.34

84443(TSH) Price: \$8.71

**Note:** Reflex confirmatory TSH testing is performed on all T4 results that are less than 10 ug/dL.

Transport Temperature: Ambient

#### Newborn Screening Panel (see tests above) + Cystic Fibrosis Screen

Specimen Requirements: Dried blood spots. See specific instructions on page 43 and the Newborn Screening Practitioner's Manual.

Turn Around Time: 2 - 5 days. Abnormal results are telephoned to the submitter. *These tests may be ordered as a panel, but will be billed individually.* 

**Note:** Reflex confirmatory TSH testing is performed on all T4 results that are less than 10 ug/dL.

CPT Codes: 84030 (PKU) Price: \$10.19 82775 (Gal) Price: \$11.10 84437 (T4) Price: \$9.88 83516 (CF) Price: \$9.88 83020 (Hgb) Price: \$8.17

84443(TSH) Price: \$8.71

Total Price: \$49.22

Transport Temperature: Ambient

# Nocardia sp. Culture Isolation/ Identification (see Fungal Culture)

#### Nocardia sp. Serology

Specimen Requirements: 2 ml. Serum CPT Code: 86744

Price: \$8.11

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 3-6 weeks.

Transport Temperature: Ambient

# Norovirus Direct Detection by Nucleic Acid Amplification

Specimen Requirements: 2 ml stool in a sterile container. See specific CPT Code: 83891 (Extraction) instructions on page 40-41.

Price: \$60.00

Total Price: \$22.93

Turn Around Time: 1-3 days. Results are telephoned to the submitter.

Transport Temperature: 2-8°C

88313 (Trichrome stain) Price: \$10.49

#### **Ova and Parasite Exam**

Specimen Requirements: Stool transported in tubes containing Formalin and PVA. Collect stool into a clean specimen container. Using the spoon inside the transport material, immediately transfer about 1 teaspoon of stool to a vial of 5% buffered formalin, and then transfer a similar quantity of stool to a vial containing PVA. Stool should be emulsified into the transport media. The formalin and PVA transport containers are available upon request.

Transport Temperature: Ambient

CPT Code: 87177 (concentration/ID) Price: \$12.44

Turn Around Time: 1 - 2 working days. Positive results are telephoned to the submitter.

# Organic Acidemias/Fatty Acid Oxidation (see Acylcarnitine Profile)

# Orthopoxvirus, including Variola (Smallpox), Vaccinia, and Monkey Pox Direct Detection by Real Time PCR

Specimen Requirements: Lesion swab in Microtest Transport Media <u>plus</u> an additional lesion swab transported dry in a sterile container. Call the laboratory for special instructions regarding environmental samples.

CPT Code: 87798 Price: \$60.00

Transport Temperature: 2-8°C

A suspect Orthopoxvirus requires Infectious Disease packaging (Class 6.2) and trackable shipping. Please notify the PHL at time of shipment.

Turn Around Time: 1-3 days. Results are telephoned to the submitter.

# Orthopoxvirus, Other Than Variola, Direct Detection by Real Time PCR

CPT Code: 87798 Specimen Requirements: Lesion swab in Microtest Transport Media plus an additional lesion swab transported dry in a sterile container. Price: \$60.00

See specific instructions on page 40-41.

Transport Temperature: 2-8°C

Turn Around Time: 1-3 days. Results are telephoned to the submitter.

# **Paragonimus Detection**

CPT Code: 87207 Specimen Requirements: Lung tissue

Price: \$8.11

Referred to the Centers for Disease Control, Atlanta, Georgia

Transport Temperature: Ambient Turn Around Time: 3-6 weeks

#### **Paragonimus Serology**

Specimen Requirements: 2 ml. Serum CPT Code: 86317

Price: \$8.11

Referred to the Centers for Disease Control, Atlanta, Georgia

Transport Temperature: Ambient Turn Around Time: 3-6 weeks

# Parainfluenza Types 1 - 3 Culture (See Respiratory Virus Isolation).

#### **Parasite Detection** (see Ova and Parasite Exam)

## **Paratyphoid Fever** (see Salmonella sp.)

## Parvovirus Serology IgG & IgM by EIA

Specimen requirements: 2 ml. Serum CPT Code: 86747

Price: \$8.11

CPT Code: 84030

Price: \$10.19

Referred to the Oregon State Public Health Laboratory, Salem, OR.

Turn Around Time: 2-4 weeks Transport Temperature: Ambient

#### Pasteurella sp. Culture Isolation/ Identification (see Bacterial Culture, Aerobic)

# **PCP** (see *Pneumocystis carinii* (now *P. jiroveci*) Detection)

## **Penicillium sp. Culture Isolation/ Identification** (see Fungal Culture)

#### **Pertussis** (see *Bordetella pertussis*)

#### **PFGE** (see Pulsed Field Gel Electrophoresis)

#### **Phenylalanine** by Fluorescent Immunoassay

Specimen Requirements: Dried blood spots. See specific instructions on page 43 and the Newborn Screening Practitioner's Manual.

Transport Temperature: Ambient Used to monitor levels in patients diagnosed with phenylketonuria (PKU).

Turn Around Time: 1 - 2 days. All PKU Monitor results are telephoned to the submitter.

# **PKU** (see Phenylalanine or Newborn Screening Panel)

## **Plague** (see *Yersinia pestis*)

### **Plasmodium Detection**

Specimen Requirements: Blood smear, thick and thin; unstained or stained with Giemsa or Wright's Stain, and EDTA tube (for possible PCR testing).

Transport Temperature: Ambient

Turn Around Time: 1-2 days. Positive samples for confirmation and specimens for PCR testing are referred to the Centers for Disease Control, Atlanta, Georgia.

# Plasmodium Serology by IFA

CPT Code: 86750 Specimen Requirements: 2 ml. Serum

Price: \$8.11

CPT Code: 87207

Price: \$15.00

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 2-4 weeks

Transport Temperature: Ambient

**NOTE:** Serology is performed only on patients whose blood slides are repeatedly negative, and have compatible travel history.

# Pneumococcal Infection (see Streptococcus pneumoniae)

## Pneumocystis carinii (now P. jiroveci) Detection

Testing is no longer available through this laboratory or the Centers for Disease Control. Submit specimen to an alternate reference laboratory.

# **Pseudomonas sp. Culture Isolation/ Identification** (see Bacterial Culture, Aerobic)

#### **Pulsed Field Gel Electrophoresis**

Specimen Requirements: Send non-fastidious Gram negative rods or Gram positive isolates on agar slants or on swab in Cary-Blair Transport Medium.

Transport Temperature: Ambient

CPT Code: None

Price: No Cost\*

\*Testing is performed at no cost for epidemiological purposes. For public health surveillance, please submit all isolates of Salmonella sp., Shigella sp., and toxin-producing E. coli.

Please contact the Laboratory in advance regarding special infection control studies.

#### O Fever (Coxiella burnetti) Phase 1 and Phase 2 IgG Serology by Indirect Immunofluorescence

CPT Code: 86638 Specimen Requirements: 2 ml. Serum Price: \$16.44 Paired acute and convalescent serum are recommended.

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter.

Transport Temperature: Ambient

CPT Code: None

Price: No cost

#### **Rabies Detection for Diagnostic Purposes**

**Animal Testing** - Not performed by our Laboratory. Refer specimens to the Veterinary Diagnostic Laboratory in Bozeman, (406) 994-4885.

Transport Temperature: Call for instructions

Human Testing for Diagnostic Purposes - Consult the Laboratory for specific sampling requirements and proper handling and transport.

Human Diagnostic Testing is referred to the Centers for Disease Control, Atlanta, Georgia.

Turn Around Time: Preliminary results (PCR) are available as soon as possible, usually the same day as receipt.

# Rabies Serology for Immune Status Antibody Testing by RFFIT

Testing not available through this Laboratory.

Testing available from:

Atlanta Health Associates, Alpharetta, Georgia (770) 667-8023,

Kansas State University, Manhattan, KS (785) 532-4483

or other reference laboratories.

#### **Respiratory Syncytial Virus Culture** (See Respiratory Virus Culture)

# Respiratory Syncytial Virus Direct Detection by Direct Fluorescence Assay

Specimen Requirements: Nasal wash or Nasopharyngeal (NP) swab in Microtest Transport Media, or acetone fixed slide from NP swab. See specific collection instructions on page 39.

Transport Temperature Media: 2-8°C Transport Temperature Slide: Ambient

Turn Around Time: Performed each working day. Results are telephoned to the submitter.

# Respiratory Virus Culture Isolation/Identification

Specimen Requirements: Throat or NP Swab, Nasal or Bronchial Wash in Microtest Transport Media, received within 48 hours of collection. See specific instructions on page 39.

Transport Temperature: 2-8°C

CPT Code: 87807

CPT Code: 87252

Price: \$30.50

Price: \$19.03

Turn Around Time: Positives results are telephoned to the submitter; cultures are monitored for 2 weeks prior to reporting as negative.

**NOTE:** Respiratory specimens for virus isolation are screened for the presence of the following commonly isolated viruses: Adenovirus, Influenza A, Influenza B, Parainfluenza Type 1, 2, and 3, Respiratory Syncytial Virus, Enterovirus (including Echovirus and Coxsackie A & B), and Herpes Simplex Virus.

#### **Ricin Rapid Tests**

Specimen Requirements: Environmental samples only

CPT Code: None Price: No cost

Turn Around Time: 1-3 days. Call the laboratory prior to sending sample.

Results are telephoned to the submitter.

Transport Temperature: Ambient

# **Rickettsial Serology** (see Rocky Mountain Spotted Fever, Typhus Fever Serology)

#### Rochalimea sp. Culture Isolation/ Identification (see Bartonella sp. Culture)

# Rochalimea sp. Serology (see Bartonella Serology)

#### Rocky Mountain Spotted Fever IgG Serology by Indirect Immunofluorescence

Specimen Requirements: 2 ml. Serum
Paired acute and convalescent serum recommended.

CPT Codes: 86757 (RMSF) Price: \$16.44 86790 (CTFV) Price: \$16.44

**Total Price: \$32.88** 

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter.

Transport Temperature: Ambient

NOTE: Colorado Tick Fever testing will be automatically performed on all requests for Rocky Mountain Spotted Fever.

**RSV** (see Respiratory Syncytial Virus)

Rubella IgG Serology by EIA

CPT Code: 86762 Specimen Requirements: 2 ml. Serum Price: \$16.44

Screen or paired acute and convalescent specimens

Turn Around Time: Routinely batch tested 3 times per week, available Transport Temperature: Ambient

each working day, as needed.

Rubella IgM Serology by capture EIA

Specimen Requirements: 2 ml. Serum; include date of onset of rash. CPT Code: 86762

Price: \$16.44

Transport Temperature: 2-8°C

Transport Temperature: Ambient

Turn Around Time: Performed each working day, as needed. Positive

results are telephoned to the submitter. Transport Temperature: Ambient

Rubeola (Measles) Culture Isolation/Identification

CPT Code: 87252 Specimen Requirements: Throat or NP Swab in Microtest Transport Price: \$30.50

Media, received within 48 hours of collection. See specific instructions on page 39.

Turn Around Time: Positive results are telephoned to the submitter; cultures are monitored for 2 weeks prior to reporting as negative.

Rubeola (Measles) IgG Serology by EIA

Specimen Requirements: 2 ml. Serum CPT Code: 86765 Screen or paired acute and convalescent specimens. Price: \$16.44

Turn Around Time: Routinely batch tested once per week. Significant results are telephoned to the submitter.

Rubeola (Measles) IgM Serology by capture EIA

CPT Code: 86765 Specimen Requirements: 2 ml. Serum; include date of onset of rash.

Price: \$16.44

Turn Around Time: Performed each working day, as needed. IgM Transport Temperature: Ambient results are telephoned to the submitter.

Salmonella sp. (including S. typhi) Culture Isolation/Identification

CPT Code: 87077 Specimen Requirements: Stool in Cary-Blair Transport, or other commercial enteric Price: \$28.66 transport media, or pure culture. See Enteric Panel for specific instructions.

Transport Temperature: 2-8°C Biochemically confirmed Salmonella sp. will be serotyped for epidemiologic purposes at no additional cost.

For public health surveillance, please submit all isolates of Salmonella sp. to the Montanan Public Health Laboratory. See Enteric Culture Surveillance.

Turn Around Time: 2 to 4 days. Positive identification results are telephoned to the submitter.

**SRS-CoV Direct Detection** by Real Time PCR

Specimen Requirements: For optimal testing, specimens need to be collected from at least three separate sites. The recommended sites are lower respiratory (sputum), acute serum (2 ml) and stool (10 ml).

Transport Temperature: 2-8°C

CPT Code: None

Price: No cost

Turn Around Time: 1-3 days. Results are telephoned to the submitter.

Note: Currently, this test is only available under an Investigative Device Exemption from the Food and Drug Administration. Patients must meet the current SARS surveillance case definition. Informed consent must be obtained. Contact your local public health department for details.

# **SRS-CoV Total Antibody Test** by EIA

This serum-based assay for total antibody (IgG, IgM, and IgA) can be positive in as few as 8-10 days after onset of symptoms.

Price: No cost

Transport Temperature: 2-8°C

CPT Code: 87177(Conc ID) Price: \$12.44

88313 (Trichrome) Price: \$10.49

CPT Code: None

Specimen Requirements: 2 ml Serum. A convalescent serum drawn at least 29

days post symptom onset should also be submitted.

Turn Around Time: 1-3 days. Results are telephoned to the submitter.

Note: Currently, this test is only available under an Investigative Device Exemption from the Food and Drug Administration. Patients must meet the current SARS surveillance case definition. Informed consent must be obtained. Contact your local public health department for details prior to submission of specimens.

#### **Schistosoma Detection**

Specimen Requirements: Stool in formalin/PVA transports or urine in leak-proof sterile container

Transport Temperature Stool: Ambient Turn Around Time: 1-2 days; Positive samples are referred for Transport Temperature Urine: 2-8°C confirmation to the Centers for Disease Control, Atlanta, Georgia

Schistosoma Serology by FAST-ELISA

CPT Code: 86682 Specimen Requirements: 2 ml. Serum

Price: \$8.11

CPT Code: 87077

Transport Temperature: Ambient

Price: \$28.66

Referred to the Centers for Disease Control, Atlanta, Georgia

Transport Temperature: Ambient Turn Around Time: 3-6 weeks

Shigella sp. Culture Isolation/Identification

Specimen Requirements: Stool in Cary-Blair Transport, or other commercial enteric transport media, or pure culture. See Enteric Panel for specific instructions.

For public health surveillance, please submit all isolates of Shigella sp. to the Montanan Public Health Laboratory. See Enteric Surveillance Culture.

Turn Around Time: 2 to 4 days. Positive results are telephoned to the submitter.

#### Sin Nombre Virus (see Hantavirus Serology)

# **Sporothrix Culture Isolation/ Identification** (see Fungal Culture)

## **Sporothrix Serology** by Latex and/or Tube Agglutination

CPT Code: 86317 Specimen Requirements: 2 ml. Serum Price: \$8.11

Referred to the Centers for Disease Control, Atlanta, Georgia Transport Temperature: Ambient

Turn Around Time: 3-6 weeks

# SNV - Sin Nombre Virus (see Hantavirus Serology)

# St Louis Encephalitis IgM Serology by EIA

This test may be ordered individually. In addition, due to the cross-reactivity of West Nile Virus (WNV) and St Louis Encephalitis Virus (SLE), SLE serology is done on specimens with a borderline WNV test result.

CPT Code: 86790 Price: \$15.00

Transport Temperature: Ambient

Specimen Requirements: 2 mL. Serum and/or 1 mL. CSF

Date of onset is required, and the city or county of patient's residence is requested.

Negative results on specimens drawn less than 9 days from date of onset, should have a convalescent serum tested if active disease is suspected.

Turn Around Time: Routinely batch tested twice per month. Positive results are telephoned to the submitter. Certain specimens may be referred to the Centers for Disease Control in Fort Collins, Colorado for confirmation using more specific Plaque Reduction Neutralization tests.

# Staphylococcus sp. Culture Isolation/ Identification (see Bacterial Culture, Aerobic)

#### **Staphylococcus Entertoxin B Rapid Tests**

Specimen Requirements: Environmental samples only

CPT Code: None Price: No cost

Turn Around Time: 1-3 days. Call the laboratory prior to sending sample. Results are telephoned to the submitter.

Transport Temperature: Ambient

#### **Stool Culture** (see Enteric Panel)

#### **STEC** (see *Escherichia coli* Shiga-Like Toxin Assay)

#### Streptococcus pneumoniae Culture Isolation/ Identification (see Bacterial Culture, Aerobic)

#### Streptococcus pneumoniae Serotyping

Specimen Requirements: Pure culture of an invasive *S. pneumoniae* isolate from a previously vaccinated individual; include vaccine history.

CPT Code: 87147 Price: \$8.11

Transport Temperature: Ambient

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 2-3 weeks.

# Streptococcus Group A Screen, Culture Method

Specimen Requirements: Throat swab in silica gel

CPT Code: 87081 Price: \$23.80

Turn Around Time: Positive results are telephoned to the submitter; cultures are monitored for 48 hours prior to reporting as negative.

Transport Temperature: Ambient

### Streptococcus sp. Culture Isolation/ Identification (see Bacterial Culture, Aerobic)

# **Strongyloides Detection** (see Ova and Parasite Exam)

## Strongyloides Serology by EIA

Specimen Requirements: 2 ml. Serum CPT Code: 86317

Price: \$8.11

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 3-6 weeks

Transport Temperature: Ambient

# Syphilis Serology Screen (Qualitative) by VDRL

Specimen Requirements: 2 ml. Serum, or 1 ml. CSF

CPT Code: 86592 Price: \$10.83

Turn Around Time: Routinely batch tested twice per week. Positive results are automatically quantitated and telephoned to the submitter.

Transport Temperature: Ambient

# Syphilis Serology Screen (Quantitative) by VDRL

Specimen Requirements: 2 ml. Serum, or 1 ml. CSF

CPT Code: 86593

CPT Code: 84437

Price \$10.98

Turn Around Time: Routinely batch tested twice per week. Results are telephoned to the submitter.

Transport Temperature: Ambient

**NOTE:** Reflex confirmatory FTA-ABS testing is performed on all serum VDRL specimens with results of Reactive 2 dilutions or greater. Initial results of weakly reactive or reactive 1 dil should have a second sample submitted.

# Thyroxine (T4) by Fluorometeric Assay

Specimen Requirements: Dried blood spot. See specific instructions on page 43.

Price: \$9.88

Test is used to monitor therapy in newborns with congenital hypothyroidism (CH).

Transport Temperature: Ambient

Turn Around Time: 2 - 5 days; abnormal results are reflexed to TSH testing and telephoned to the submitter.

# **Tick-borne Disease Serology Panel** (Rocky Mountain Spotted Fever IgG, Colorado Tick Fever IgG, Q-Fever IgG, Tularemia IgG and Brucella IgG) by IFA, Bacterial Agglutination

Specimen Requirements: 3 ml. Serum
Paired acute and convalescent serum recommended.

CPT Codes: 86757 (RMSF) Price: \$16.44 86790 (CTFV) Price: \$16.44 86638 (QF) Price: \$16.44 86668 (Tul) Price: \$14.87 86622 (Bruc) Price: \$14.87

Turn Around Time: Routinely batch tested once per week. Positive results are telephoned to the submitter. *These tests may be ordered as a panel, but will be billed individually.* 

Transport Temperature: Ambient

Total Price: \$79.06

Note: Although not a tick-borne disease, Brucella testing is performed on all requests for Tularemia due to antigen cross reactivity.

# Tick-borne Relapsing Fever (see Borrelia hermsii Serology)

# Torch Screen, IgG only by EIA

#### (Toxoplasma, Cytomegalovirus, Rubella, Herpes Simplex Virus Type 1 and 2)

Specimen Requirements: 2 ml. Serum

Paired acute and convalescent serum recommended. For

CPT Codes: 86777 (Toxo) Price: \$16.44

86644 (CMV) Price: \$16.44

newborns, include mother's serum for baseline paired specimen.

86762 (Rubella) Price: \$16.44
86695 (Herpes Simplex 1) Price: \$16.44

Turn Around Time: Routinely batch tested once per week.

86696 (Herpes Simplex 1) Price: \$16.44

Significant results are telephoned to the submitter. *These tests*may be ordered as a panel, but will be billed individually.

Total Price: \$82.20

Transport Temperature: Ambient

**Torch Screen, IgG + IgM** by EIA (Toxoplasmosis IgG + IgM, Cytomegalovirus IgG + IgM, Rubella IgG + IgM, Herpes Simplex Virus IgG, Type 1 and 2)

Specimen Requirements: 2 ml. Serum, include date of onset. CPT Codes: 86777 (Toxo) Price: \$16.44

86644 (CMV) Price: \$16.44

86762 (Rubella) Price: \$16.44 Turn Around Time: Routinely batch tested once per week. 86695 (Herpes Simplex 1) Price: \$16.44 IgM testing performed each working day, as needed. Positive

86696 (Herpes Simplex 2) Price: \$16.44 IgM results are telephoned to the submitter. *These tests may* 86778 (Tox M) Price: \$29.53 be ordered as a panel, but will be billed individually.

86645 (CMV M) Price: \$29.53 86762 (Rub M) Price: \$16.44

**Total Price: \$157.70** 

Transport Temperature: Ambient

Toxocara Serology by EIA

CPT Code: 86317 Specimen Requirements: 2 ml. Serum

Price: \$8.11

Referred to the Centers for Disease Control, Atlanta, Georgia

Transport Temperature: Ambient Turn Around Time: 3-6 weeks

Toxoplasmosis IgG Serology by EIA

Specimen Requirements: 2 ml. Serum CPT Code: 86777 Screen or paired acute and convalescent specimens Price: \$16.44

Turn Around Time: Routinely batch tested once per week. Positive Transport Temperature: Ambient

results are telephoned to the submitter.

**Toxoplasmosis IgM Serology** 

Specimen Requirements: 2 ml. Serum CPT Code: 86778

Price: \$29.53

Turn Around Time: Testing performed each working day. Significant

results are telephoned to the submitter. Transport Temperature: Ambient

Treponema pallidum (See Syphilis Serology or FTA-ABS)

Trichinella Serology

CPT Code: 86784 Specimen Requirements: 2 ml. Serum

Price: \$8.11

Referred to the Centers for Disease Control, Atlanta, Georgia

Turn Around Time: 3-6 weeks Transport Temperature: Ambient

**Trypanosomiasis Detection** 

CPT Code: 87207 Specimen Requirements: Blood smear, unstained or stained with Wright's or Giemsa.

Price: \$15.00

Turn Around Time: 1-2 days, positive smears are referred for Transport Temperature: Ambient

confirmation to the Centers for Disease Control, Atlanta, Georgia

**Trypanosomiasis Serology** 

CPT Code: 86682 Specimen Requirements: 2 ml. Serum

Price: \$8.11

Referred to the Centers for Disease Control, Atlanta, Georgia

Transport Temperature: Ambient Turn Around Time: 3-6 weeks

**Tuberculosis** (See *Mycobacterium sp.*)

**Tularemia Culture** (See *Francisella tularensis culture*)

**Tularemia Serology** (See Francisella tularensis serology)

# **Typhoid Fever** (See Enteric Panel or Salmonella sp.)

# Typhus IgG Serology by Indirect Immunofluorescence

Specimen Requirements: 2 ml. Serum

CPT Code: 86256

Paired acute and convalescent serum are recommended.

Price: \$8.11

Referred to the Centers for Disease Control, Atlanta, Georgia

Transport Temperature: Ambient

Turn Around Time: 3-6 weeks

# Tyrosinemia (See Aminoacidopathies by MS/MS)

# Vancomycin Resistant Enterococci (VRE) (See Antimicrobial Resistant Bacteria Confirmation)

# Varicella Zoster (Herpes Zoster) Virus Culture Isolation/Identification

Specimen Requirements: Specimen, usually vesicular fluid, in

Microtest Transport Media, received within 48 hours of collection.

CPT Code: 87252

Price: \$30.50

See specific instructions on page 39.

Transport Temperature: 2-8°C

Turn Around Time: Positive results are telephoned to the submitter. Cultures are monitored for 1 month prior to a negative report.

## Varicella Zoster Virus Direct Detection by Direct Fluorescence Assay

Specimen Requirements: Slide prepared from vigorously scraping the base of a fresh lesion with a Dacron swab. Smear specimen over a small (dime) sized circle on the microscope slide. Avoid excess blood contamination of the specimen. Fix slide with acetone prior to submission.

CPT Code: 87290
Price: \$19.03

Turn Around Time: Performed each working day. Positive results are telephoned to the submitter.

**NOTE:** Traditional cell culture should also be performed. See Varicella Zoster (Herpes Zoster) Virus Culture Isolation/ ID.

#### Varicella Zoster Virus (Herpes Zoster Virus) IgG Serology by EIA

Specimen Requirements: 2 ml. Serum

CPT Code: 86787

Screen or paired acute and convalescent specimens.

Price: \$16.44

Turn Around Time: Routinely batch tested once per week; available each working day, as needed. Significant and STAT results are telephoned to the submitter.

To qualify for *STAT* testing, the following criteria must be met:

- 1. The patient is at high risk for complications and has been recently exposed to a known case of chickenpox. High risk patients are defined as immunocompromised persons, pregnant women, premature infants whose mothers are not immune, premature infants  $<\!28$  weeks gestation, and premature infants  $<\!1000$  grams at birth
- 2. The patient does not have a history of chicken pox and/or does not know their immune status.
- 3. Exposure has been recent enough that the 96 hour window for administration of VZIG is achievable if the testing determines the patient to be susceptible to VZV infection.

Transport Temperature: Ambient

# Varicella Zoster Virus Direct Detection by Real Time PCR

Specimen Requirements: Vesicular lesion swab in Microtest Transport Media <u>plus</u> an additional vesicular lesion swab transported dry in a sterile container. See specific instructions on page 40-41.

CPT Code: 87798 Price: \$60.00

Transport Temperature: 2-8°C

Turn Around Time: 1-3 days. Results are telephoned to the submitter.

# VDRL Serology (see Syphilis serology)

#### Vibrio sp. Culture Isolation/ Identification

Specimen Requirements: Stool in Cary-Blair Transport, or other commercial enteric transport media, or pure culture. Specify agent on request form.

Price: \$23.80

CPT Code: 87046

CPT Code: 87252

Transport Temperature: 2-8°C

Turn Around Time: 2 to 4 days. Positive results are telephoned to the submitter.

#### Virus Culture Isolation/Identification

Specimen Requirements: Specimen in Microtest Transport Media, received within 48 hours of collection. See specific instructions on page 39

Price: \$30.50

Transport Temperature: 2-8°C

Turn Around Time: Positive results are telephoned to the submitter. Cultures are monitored for 2 weeks prior to a negative report.

**NOTE:** Specimens for virus isolation are screened for the presence of the following commonly isolated viruses: Adenovirus, Influenza A, Influenza B, Parainfluenza Type 1, 2, and 3, Respiratory Syncytial Virus, Enterovirus (including Coxsackie A& B and Echovirus) and Herpes Simplex Virus.

#### **VRE** (see Antimicrobial Resistant Bacteria Confirmation)

# Western Blot (see HIV-1 Antibody)

#### West Nile Virus IgM Serology by EIA

Serology is the recommended method of testing for WNV in both serum and Cerebral Spinal Fluid (CSF), as viremia (as detected by PCR) is very transient.

Price: \$15.00

CPT Code: 86790

Transport Temperature: Ambient

Specimen Requirements: 2 mL. Serum and/or 1 mL. CSF

Date of onset is required, and the city or county of patient's residence is requested.

Negative results on specimens drawn less than 9 days from date of onset, should have a convalescent serum tested if active disease is suspected.

Turn Around Time: Routinely batch tested once per week; during seasonal outbreaks, testing may be performed each working day, depending on workload. Positive results are telephoned to the submitter. Certain specimens may be referred to the Centers for Disease Control in Fort Collins, Colorado for confirmation using more specific Plaque Reduction Neutralization tests, and equivocal (borderline) results will be reflexed to St. Louis Encephalitis IgM Serology.

#### West Nile Virus IgG Serology by EIA

Specimen Requirements: 2 mL. Serum and/or 1 mL. CSF. Paired acute and convalescent specimens recommended.

Transport Temperature: Ambient

CPT Code: 86790

Price: \$15.00

Date of onset is required, and the city or county of patient's residence is requested.

Turn Around Time: Routinely batch tested once per week; during seasonal outbreaks, testing may be performed each working day, depending on workload. Positive results are telephoned to the submitter.

#### Yeast Culture (see Fungal Culture Isolation/Identification)

#### Yersinia enterocolitica Culture Isolation/Identification

Specimen Requirements: Stool in Cary-Blair Transport, or other commercial enteric transport media, or pure culture. Specify agent on request form.

Transport Temperature: 2-8°C

CPT Code: 87046

Price: \$23.80

Turn Around Time: 2 to 4 days. Positive results are telephoned to the submitter.

#### Yersinia pestis Culture Isolation/Identification/Rapid Test Methods

Specimen Requirements: Isolate submitted on solid agar medium or tissue transported cold in sterile saline. Call the laboratory for special instructions regarding environmental samples and rapid test methods. CPT Code: 87077 (Culture ID) Price: \$23.80 87798(PCR)

Price: \$60.00

CPT Code: 86793 Price: \$8.11

A suspect Y. pestis culture requires Infectious Disease packaging (Class 6.2) and trackable shipping. Please notify the PHL at time of shipment.

Transport Temperature: 2-8°C

Turn Around Time: Cultures will be held for 7-10 days before reporting as negative. Results are telephoned as soon as possible to the submitter. Rapid test methods are available within 6 hours of specimen receipt.

#### Yersinia pestis Serology by Passive Hemagglutination

Specimen Requirements: 2 ml. Serum Call the Laboratory prior to submission to make arrangements

Transport Temperature: Ambient Referred to the Centers for Disease Control, Fort Collins, Colorado

Turn Around Time: 4-6 weeks

# COLLECTION AND TRANSPORT OF SPECIMENS FOR MYCOBACTERIUM (TB) TESTING

#### ALL SPECIMENS ARE POTENTIALLY INFECTIOUS

#### **HANDLE CAREFULLY**

Sputum or Nebulized Sputum	Collect three early morning specimens on successive days and submit in separate containers. Good specimens are material brought up by the lungs after a productive cough or nebulization. Send a minimum of 2.5 ml in a sterile container.
Urine	Collect multiple early morning "clean catch" specimens on successive days. Send a minimum of 10 ml in a sterile container.
Gastric	Collect three early morning fasting specimens on successive days. Send a minimum of 10 ml in a sterile container. Add 10 mg of sodium bicarbonate to neutralize the acidity. Send promptly after collection; these specimens should be processed as soon as possible.
Bronchial Washings	Submit first sputum specimen following bronchoscopy as well as the bronchial washings. Send a minimum of 2.5 ml in a sterile container.
Tissues	Collect aseptically and place in sterile container. Add about 5 ml sterile broth or sterile saline to tissues and swabs to prevent dehydration.
CSF or Other Sterile Body Fluids	Submit in sterile collection tube; at least 1 ml is needed for an adequate test.
Blood or Bone Marrow	Collect in heparinized tube or add sterile heparin (0.2 mg/ml) to prevent clotting. Send a minimum of 1 ml in a sterile container.
Stool	Submit 1 gram of raw stool in a sterile container. Send on ice.

Use only sterile materials in the collection of the specimen. Collect specimen directly into the sterile bottle provided or into a sterile container, then refrigerate specimen and send as soon as possible. Make certain that the container is labeled with patient identifier and collection date.

Screw lid onto specimen container tightly so specimen does not leak; place specimen container in biohazard ziplock bag containing absorbent material and seal bag tightly.

Fill out standard laboratory test request form. See specific instructions on page 46.

Place form on outside of biohazard ziplock bag and put into TB mailing container. Transport at ambient temperature by mail or courier.

# COLLECTION AND TRANSPORT OF SPECIMENS FOR FUNGAL CULTURES

Tissue	Place tissue in sterile serow on container and sover with 5 ml of sterile seline or
1 ISSUE	Place tissue in sterile screw cap container and cover with 5 ml of sterile saline or
	broth. Refrigerate until time of mailing.
Blood	Collect 8 ml blood aseptically in a yellow Vacutainer tube (contains 0.05% SPS).
	This specimen can be used to inoculate a vented biphasic blood culture bottle
	containing TSB, TSA, or BHI agar and broth in a ratio of 1 part blood to 10 parts
	broth. Incubate at room temperature. Subculture onto Sabouraud's agar slants
	according to established procedures. Submit either slants or blood culture bottles
	for culture identification.
Bone marrow	Collect approximately 0.3 ml of bone marrow in a heparinized tube. Refrigerate
	specimen until mailing, and ship in sterile screw cap container.
Bronchial wash,	Send in sterile screw cap container. May be sent in TB transport container.
Pleural fluid, Joint	Refrigerate specimen until mailing.
fluid, Sputum	
CSF	Send a minimum of 1.0 ml in sterile screw cap container. Refrigerate specimen until
	mailing.
Hair	Remove about 10 hairs with roots using forceps; place hairs between clean glass
	slides or in clean envelope. Wrap slides in paper and tape closed. Send in mailer.
	NOTE: Hairs that break off at scalp level when using forceps must be removed with
	a knife. Scraping the scalp rarely yields infected hairs.
Skin	Wipe lesions well with alcohol sponge (cotton will leave too many fibers on skin).
	Scrape the entire periphery of the lesion(s) with a sterile scalpel. Place scrapings
	between two clean glass slides as discussed under hair, or in an envelope. Send in
	mailer.
Nails	Clean nail with alcohol gauze. Scrape and discard outer portion of nail. Collect
	scrapings from inner nail and send in envelope or between glass slides. Send an entire
	nail, if it has been removed, in a sterile screw cap container.
	1 / 1

**Please Note:** We can set up both a TB culture and a fungal culture from a single specimen by request. Make certain that test request form is clearly marked.

Place specimen container in a biohazard ziplock bag containing absorbent material and seal bag tightly. Make certain that container is labeled with patient identifier and collection date.

Fill out standard laboratory test request form. See specific instructions on page 46.

Place form on outside of biohazard ziplock bag and put into mailing container. Transport at ambient temperature by mail or courier.

# COLLECTION AND TRANSPORT OF SPECIMENS FOR APTIMA CHLAMYDIA/GONORRHEA TESTING

Both the Unisex Swab Collection Kit and Urine Specimen Collection Kit are stored at room temperature.

#### ENDOCERVICAL SWAB COLLECTION

- 1. Remove excess mucus from the cervical os and surrounding mucosa using the white shafted cleansing swab.

  Discard this white shafted swab.
- 2. Insert the blue shafted specimen collection swab into the endocervical canal.
- 3. Gently rotate the swab clockwise for 10 to 30 seconds in the endocervical canal to ensure adequate sampling.
- 4. Withdraw the swab carefully, avoid any contact with the vaginal mucosa.
- 5. Remove the cap from the swab specimen transport tube and immediately place the specimen collection swab into the transport tube.
- 6. Carefully break the swab shaft at the scoreline; use care to avoid splashing of contents.
- 7. Re-cap the swab specimen transport tube tightly. Make certain the transport tube is labeled with a minimum of patient name; collection date is also helpful.

#### MALE URETHRAL SWAB COLLECTION

- 1. The patient should not have urinated for at least one hour prior to sample collection.
- 2. Insert the blue shafted specimen collection swab 2-4 cm into the urethra.
- 3. Gently rotate the swab clockwise for 2 to 3 seconds in the urethra to ensure adequate sampling.
- 4. Withdraw the swab carefully.
- 5. Remove the cap from the swab specimen transport tube and immediately place the specimen collection swab into the transport tube.
- 6. Carefully break the swab shaft at the scoreline; use care to avoid splashing of contents.
- 7. Re-cap the swab specimen transport tube tightly. Make certain the transport tube is labeled with a minimum of patient name; collection date is also helpful.

#### **SWAB SPECIMEN TRANSPORT**

- 1. After collection, transport and store swab specimen transport tube at 2°C to 30°C.
- 2. Place transport tube in an individual zip lock bag containing absorbent material and seal bag tightly.
- 3. Fill out laboratory test request form completely. Place this in the sleeve of the zip lock bag; DO NOT put the request form inside the zip lock bag.
- 4. Place transport tubes in white mailing canisters and transport to the Public Health Laboratory.
- 5. Although swab specimens in the specimen transport tube may be tested within **60 days of collection**, we advise you to submit specimens in a timely manner so that test results can be obtained as soon as possible.

#### URINE COLLECTION

- 1. The patient should not have urinated for at least one hour prior to sampling.
- 2. Direct patient to provide a first-catch urine (approximately 20 to 30 mL of the initial urine stream) into a urine collection cup. Collection of larger volumes of urine may reduce test sensitivity. Female patients should not cleanse the labial area prior to providing the specimen. This is NOT a clean catch urine we want the initial urine stream which contains sloughed cells.
- 3. Remove the cap and transfer 2 mL of urine into the urine specimen transport tube using the disposable pipette provided. The correct volume of urine has been added when the fluid level is between the black lines on the urine specimen transport tube label.
- 8. Re-cap the urine specimen transport tube tightly. This is now known as the *processed urine specimen*. Make certain the transport tube is labeled with a minimum of patient name; collection date is also helpful.

#### URINE SPECIMEN TRANSPORT

- 1. After collection, transport and store processed urine specimens (those in urine specimen transport tubes) at 2°C to 30°C.
- 2. Place transport tube in an individual zip lock bag containing absorbent material and seal bag tightly.
- 3. Fill out laboratory test request form completely. Place this in the sleeve of the zip lock bag; DO NOT put the request form inside the zip lock bag.
- 4. Place transport tubes in white mailing canisters and mail to the Public Health Laboratory.
- 5. Although urine specimens in the specimen transport tube may be tested within **30 days of collection**, we advise you to submit specimens in a timely manner so that test results can be obtained as soon as possible.

# COLLECTION AND TRANSPORT OF SPECIMENS FOR CHLAMYDIA ISOLATION Culture Method

Microtest Collection kits, containing swabs and transport media, are supplied by the Laboratory. Store at room temperature. Expiration date is printed on the collection kit. This same collection media can be used for viral isolation specimens.

Autopsy/ Biopsy Specimens	Place a small piece of the tissue into Microtest Transport Media.		
Endocervical Specimens	Wipe the cervix with one of the swabs in the collection kit prior to sample		
	collection to remove mucus and WBC. Insert the second swab into the		
	cervical os to collect cells from the transitional zone. Rotate the swab		
	vigorously in firm contact with the endocervical surface to facilitate the		
	collection of columnar epithelial cells. Place swab in Microtest Transport		
	Media, break off at the score line, and tightly cap.		
Eye (Conjunctival) Specimens	Place swab from conjunctiva in Microtest Transport Media, break off at the score line, and tightly cap.		
Nasal Washes/ Aspirates	Introduce 1-2 ml. of sterile saline into the nasopharyngeal cavity, aspirate,		
	and mix with an equal volume of Microtest Transport Media.		
Nasopharyngeal Swab	Use the flexible shaft small dacron swab to collect the specimen. Place		
	swab into Microtest Transport Media, trim swab so that the shaft is below		
	the capline, and tightly cap.		
Rectal Mucosa	Place swab into Microtest Transport Media, break off at the score line, and		
	tightly cap.		
Throat Swab	Place swab into Microtest Transport Media, break off at the score line, and		
	tightly cap.		
Urethral Swab	Patient should not have urinated within one hour of collection. Insert a		
	small swab into the urethra and hold to absorb body fluids. Rotate the		
	swab several times to obtain columnar epithelial cells, then withdraw.		
	Place swab into Microtest Transport Media, break off at the score line, and		
	tightly cap.		

Make certain tube is labeled with patient identifier and collection date. Place transport tube in ziplock bag containing absorbent material and seal bag tightly.

Fill out standard laboratory test request form completely. See specific instructions on page 46. Do not place the request form inside the zip lock bag.

**Specimens must be kept cold from the time they are collected until the time they are processed by the Laboratory.** Shipment must be done promptly, so that specimens are received by the Laboratory within 48 hours of collection. Specimens must be shipped in a cold condition, usually by the use of cold packs and Styrofoam containers. The mailers will be returned for reuse. Transport by mail or courier.

# COLLECTION AND TRANSPORT OF SPECIMENS FOR VIRAL ISOLATION Culture Method

Microtest Collection Kits, containing swabs and transport media, are supplied by the Laboratory. Store the kits at room temperature. The expiration date is printed on the collection kits. This same media is used for Chlamydia isolation.

Autopsy/ Biopsy Specimens	Place a small piece of the tissue into Microtest Transport Media.	
Bronchial Alveolar Lavage	Mix an equal portion of the BAL or bronchial washing with Microtest	
(BAL) /Bronchial Washings	Transport Media.	
Buffy Coat	Collect 2 tubes (7 - 10 ml. each) of heparinized blood.	
Cerebral Spinal Fluid	Mix an equal portion of the CSF with Microtest Transport Media.	
Endocervical Specimens	Place swab from cervix in Microtest Transport Media, break off at the	
	score line, and tightly cap.	
Eye (Conjunctival) Specimens	Place swab from conjunctiva in Microtest Transport Media, break off at	
	the score line, and tightly cap.	
Lesion Swabs/ Scrapings	Place swab from fresh lesion into Microtest Transport Media, break off at	
	the score line, and tightly cap.	
Nasal Washes/ Aspirates	See detailed instructions under Amplification Test Collection. Introduce	
	1-2 ml. of sterile saline into the nasopharyngeal cavity, aspirate, and mix	
	with an equal volume of Microtest Transport Media.	
Nasopharyngeal Swab	See detailed instructions under Amplification Test Collection. Use the	
	flexible shaft small dacron swab to collect the specimen. Place swab into	
	Microtest Transport Media, trim shaft below the capline, and tightly cap.	
Rectal Swab	Place swab into Microtest Transport Media, break off at the score line, and tightly cap.	
Saliva	Mix an equal portion of saliva with Microtest Transport Media.	
Stool	Emulsify a small portion of the stool (smaller than a pea) in Microtest	
	Transport Media.	
Throat Swab	See detailed instructions under Amplification Test Collection. Place swab	
	into Microtest Transport Media, break off at the score line, and tightly cap.	
Urethral Swab	Place swab into Microtest Transport Media, break off at the score line, and	
	tightly cap.	
Urine	Mix an equal portion of urine with Microtest Transport Media.	
Vesicular Fluid	Aspirate fluid from fresh unbroken vesicle and place into Microtest	
	Transport Media.	

Make certain tube is labeled with patient identifier and collection date. Place transport tube in biohazard ziplock bag containing absorbent material and seal bag tightly.

Fill out standard laboratory test request form completely. See specific instructions on page 46. Do not place the request form inside the biohazard ziplock bag.

**Specimens must be kept cold from the time they are collected until the time they are processed by the Laboratory**. Shipment must be done promptly, so that specimens are received by the Laboratory within 48 hours of collection. Specimens must be shipped in a cold condition, usually by the use of cold packs and Styrofoam containers. Mailers will be returned for reuse. Transport by mail or courier.

# COLLECTION AND TRANSPORT OF SPECIMENS FOR NUCLEIC ACID AMPLIFICATION TESTING

For technical assistance in determining proper specimen selection for specific agents, call the Public Health Laboratory at 800-821-7284.

Microtest Transport Media for Viral Agents is supplied by the Laboratory. Store the kits at room temperature.

Bronchial Alveolar Lavage (BAL) /Bronchial Washings	For Viral Agents, mix an equal portion of the BAL with Microtest Transport Media. Store in cold conditions and ship on blue ice packs.  For Bacterial Agents, collect in sterile container. Store in cold	
	conditions and ship on blue ice packs.	
Cerebral Spinal Fluid	Place $1-2$ ml. In sterile container without transport. Store in cold conditions and ship on blue ice packs.	
Cervical Swab	Place swab into Microtest Transport Media, break off at the score line, and tightly cap. Store in cold conditions and ship on blue ice packs.	
Nasopharyngeal Aspirate	Introduce 1-2 ml. of sterile saline into the nasopharyngeal cavity, aspirate into sterile vial. Store in cold conditions and ship on blue ice packs.	
Nasopharyngeal Wash	Use only sterile saline to collect the NP wash. Instruct the patient to sit with head slightly tilted backwards, and to hold the sterile collection cup. Instruct the patient on how to constrict the muscles at the back of the throat by saying the "K" sound rapidly and repetitively. Inform the patient that this process may prevent the saline from draining down the throat. Fill a 5 cc syringe with warm sterile saline. Gently push the tip of the patient's nose back with your thumb, and quickly inject $1-2$ ml. of sterile saline into each nostril. Instruct the patient to contain the saline in the nostrils for approximately 10 seconds while repetitively saying the "K" sound. After 10 seconds, ask the patient to tilt their head forward and collect the saline in the sterile cup. Cap the washings tightly. Refrigerate the nasopharyngeal washings until transport and ship on blue ice packs.	
Nasopharyngeal Swab	Use a flexible wire dacron or polyester swab. Instruct the patient to sit with head slightly tilted backwards. Bend the flexible wire in a small arc, and insert the swab into the nostril back to the nasopharyngeal cavity. The patient's eyes will momentarily tear. Slowly rotate the swab as it is being withdrawn.  For Viral Agents, place swab into Microtest Transport Media, trim swab shaft, and tightly cap. Store in cold conditions and ship on blue ice packs.  For Bacterial Agents, place swab in sterile tube without transport.	
Serum	Collect 5-10 ml of whole blood in serum separator tube. Allow blood to	
	clot, centrifuge and aliquot resulting sera. Store in cold conditions and ship on blue ice packs. If serum has already been frozen, ship on dry ice.	
Sputum	Collect a deep cough sputum directly into a sterile collection cup or dry container. Store in cold conditions and ship on blue ice packs.	

# COLLECTION AND TRANSPORT OF SPECIMENS FOR NUCLEIC ACID AMPLIFICATION TESTING

(continued)

Stool	Collect at least 10 ml of stool in a leak-proof, clean, dry container.		
	Store in cold conditions and ship on blue ice packs.		
Throat Swab	Use a plastic shafted Dacron swab. Using a tongue depressor, insert the		
	swab and vigorously rub the tonsils and the posterior pharynx.		
	Carefully remove the swab, not touching any area of the mouth.		
	For Viral Agents, place swab into Microtest Transport Media, trim		
	swab shaft, and tightly cap. Store in cold conditions and ship on blue		
	ice packs.		
	For Bacterial Agents, place swab in sterile tube without transport.		
Tissue Specimens	For Viral Agents, place each specimen in separate sterile containers		
Autopsy or Biopsy	containing small amounts of Microtest Transport Media. Store and ship		
	on blue ice packs or dry ice. Do Not submit formalized tissue.		
	For Bacterial Agents, place each specimen in separate sterile		
	containers containing small amounts of sterile saline or PBS. Store and		
	ship on blue ice packs. Do Not submit formalized tissue.		
Vesicules / Vesicular Fluid /	Aspirate fluid from multiple fresh unbroken vesicles and place into		
Scrapings	Microtest Transport Media. Remove the top of the vesicle and place the		
	skin of the vesicle top into a sterile tube without transport. Store both		
	samples in cold conditions and ship on blue ice packs.		

Make certain tube is labeled with patient identifier, collection date and specimen source. Place transport tube in biohazard ziplock bag and seal bag tightly.

Fill out laboratory test request form completely. See specific instructions on page 46. Do not place the request form inside the biohazard ziplock bag.

Ship specimens promptly, maintaining cold temperature from collection until receipt at the Laboratory. For those specimens that must be shipped in a cold condition, use cold packs and Styrofoam containers. Mailers will be returned for reuse. Transport by mail or courier.

### COLLECTION AND TRANSPORT OF SEROLOGY SPECIMENS

TESTING POLICY: If **DATE OF ONSET** is not present on laboratory request form, a convalescent specimen will be requested. True "ACUTE Phase" specimens will not be tested until the convalescent specimen is received. If more than four weeks pass without receipt of a convalescent specimen, the acute only specimen will be run and reported with a disclaimer that based on date of onset, specimen may have been collected prior to the production of significant antibodies. When acute and convalescent specimens are tested at the same time, only the convalescent specimen will be billed.

Acute Specimen	The <b>DATE OF ONSET</b> of symptoms or disease is less than 7 days from the date serum is obtained, usually the first few days of the illness. IgG antibody titers are not elevated. (Exceptions: Rubeola, Rubella, and Colorado Tick Fever and Rocky Mountain Spotted Fever may have a significant IgG titer in 7-10 days.)
Convalescent Specimen	The <b>DATE OF ONSET</b> of symptoms or disease is 2 weeks or greater from the date serum is obtained. IgG antibody levels should be at a significant level. Exception: <i>Legionella sp.</i> antibody levels may not be significant for 4-6 weeks.
Screen Only Single Specimen Only	The patient has a chronic condition, with the <b>DATE OF ONSET</b> of symptoms or disease being a very long period of time (months to years, <b>OR</b> patient is being screened for antibodies to a certain infectious agent (HIV, Hepatitis B, Rubella, VZV, Toxoplasma, etc.) <b>OR</b> IgM testing is available.  Single specimen test results may be difficult to interpret and an additional specimen may be requested if results warrant.

Submit approximately 2 - 4 ml. of clear non-hemolyzed serum for testing. Contact the Laboratory for exact volumes needed if serum is difficult to obtain. Serum separator tubes can be used. Spin the SST tubes well to completely separate the serum and cells and submit the whole tube. Serum does not have to be poured off. DO NOT submit unspun SST tubes. If serum is not submitted in the original SST tube, place in a leakproof container.

Cerebral Spinal Fluid (CSF) may also be submitted for serological testing in certain instances. A serum sample should also be submitted with the CSF for comparison testing.

Specimens should be clearly labeled with patient name or other identifier, and the collection date. Completely fill out the standard laboratory request form. Specific instructions for filling out the standard form are on page 46

Each serum tube must be tightly sealed in an individual biohazard ziplock bag containing absorbent material to prevent leakage and contamination. Do not place the completed laboratory request form inside the ziplock bag.

If specimen is stored prior to shipment, store at 4°C. If storage is longer than 1 week, freeze the specimen. Specimens may be shipped at room temperature. Labeled pre-addressed mailing canisters are available from the Laboratory. Transport by mail or courier.

### COLLECTION AND TRANSPORT OF SPECIMENS FOR NEWBORN SCREENING

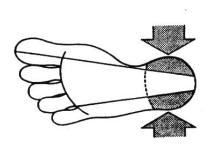
Newborn screening specimen cards for collection of dried blood spot samples are available from the Public Health Laboratory. See Supply Order form on page 51. These forms contain the requisition form with attached filter paper collection device.

Store specimen cards in a cool dry place <u>on edge</u>; flat stacking compresses the filter paper fibers. Do not handle the filter paper portion; skin oils will prevent saturation.

Complete all the information on the requisition form. See specific instructions on page 50.

### **Sample Collection**

The usual puncture site is illustrated below (shaded areas).



- 1. Sterilize and dry skin. Puncture heel with sterile lancet.
- 2. Allow large blood droplet to form.
- 3. Touch filter paper to blood and allow to soak through completely in each circle. Total saturation of the circles must be evident when the paper is viewed on both sides. **Do not apply blood to both sides.**
- 4. Use of capillary tubes is not recommended because they tend to roughen the filter paper and cause over absorption.
- 5. **Allow blood spots to air dry thoroughly for 2 3 hours at room temperature.** Keep away from direct sunlight and heat. Do not stack filter papers before thorough drying. Protective cover can be used to hold specimen while drying.
- 6. Cover with end flap only after specimen is completely dry.
- 7. Transport specimen by mail or courier at ambient temperature within 24 hours of collection.

#### **Note:** Specimens may be **UNSATISFACTORY** if:

- All circles not completely filled (QNS)
- Blood is layered by application on both sides or by multiple spotting
- Filter paper is scuffed or torn
- Specimen is contaminated or improperly dried
- Information is incomplete

#### **COLLECTION AND TRANSPORT INSTRUCTIONS**

### CAPILLARY (FINGER STICK) SPECIMENS FOR BLOOD LEAD

Collection supplies are available free of charge by contacting the Montana Public Health Laboratory.

The Capillary Collection Kit includes:		
2 Sterile Alcohol Preps	1 Lancet	1 Transport zip lock
bag		
1 Dry Sterile Gauze Pad	1 Capillary collection device	1 Instruction sheet

#### **Performing the Skin Puncture:**

- 1. Thoroughly wash hands and don powder free gloves.
- 2. Select the puncture site. Blood can be obtained from:
  - a) fingertip (for adults and children older than 1 year)
  - b) the bottom of the big toe (infants only)
  - c) the heel (infants only)
- 3. Clean the puncture site with alcohol pad. If the site is extremely soiled or very cold, wash with warm soapy water and towel dry. Use the alcohol swab to briskly scrub the puncture site to remove any environmental contamination and to increase blood flow.
- 4. Allow the site to air dry or use the sterile gauze to dry the area.
- 5. Puncture the skin with the lancet.

#### **Collection of the Sample:**

- 1. Use the gauze to wipe off the first drop of blood, which contains excess tissue fluid. A rounded drop of blood will form over the puncture site. When the tip of the collection device touches this drop, blood will flow by capillary action into the tube. Care should be taken that the tip of the collection device is in contact with the blood only, not the fingertip/toe. Gently apply continuous pressure to the surrounding tissue; avoid milking the site.
- 2. Turn the collection device during collection to help mix the blood and preservative. Fill the collection device approximately halfway between the two marked lines (approximately 300  $\Phi$ l). Draw the remaining blood from the capillary apparatus into the tube by removing the capillary tube and top as one unit. Close the tube with the separate cap provided.
- 3. Apply pressure to the puncture site with a gauze pad to stop the patient's bleeding, while simultaneously mixing the specimen manually by inverting a minimum of 10 times.
- 4. Identify each skin puncture specimen with the patient's name, at a minimum, and collection date.

#### Submitting Specimens to the Public Health Laboratory for Testing:

- 1. Complete a laboratory requisition (see page 46) to include the patient's name, date of birth, gender, collection date, submitter information, and, if applicable, Medicaid billing information.
- 2. Place the well mixed, unclotted blood specimen into the ziplock transport bag. Fold the requisition form and place in sleeve of the bag. Place the ziplock bag(s) into a preaddressed white mailing canister. Store the specimen(s) in the refrigerator until shipped. Specimens are transported at ambient temperature by mail or courier.
- 3. Specimens are stable for 7 days at refrigeration temperatures.

#### **Results:**

- 1. Laboratory test results will be mailed to the submitter upon completion of testing.
- 2. Should the initial test be elevated, a venipuncture specimen will be requested for verification.

### COLLECTION AND TRANSPORT INSTRUCTIONS VENIPUNCTURE SPECIMENS FOR BLOOD LEAD

Collection supplies are available free of charge by contacting the Montana Public Health Laboratory.

The Venipuncture Collection Kit includes:		
1 Sterile Alcohol Preps	1 Needle and Holder or 1 Butterfly and syringe	1 Transport zip lock bag
1 Dry Sterile Gauze Pad	1 Vacutainer EDTA tube	1 Instruction sheet

#### **Preparation of the Puncture Site:**

- 1. Thoroughly wash hands and don powder free gloves.
- 2. Expose the selected antecubital fossa and apply tourniquet to mid-biceps. Scrub the puncture site briskly with the alcohol pad to remove any environmental contamination and to increase blood flow.
- 3. Allow the site to air dry or use the sterile gauze to dry the area.

#### **Collection of the Sample:**

- 1. Prepare needle assembly, either needle and vacutainer holder, or butterfly and syringe.
- 2. Perform venipuncture per standard operating procedures. Make sure the blood tube is completely filled before stopping collection. If using a butterfly, obtain a minimum of 2 ml. of whole blood.
- 3. Remove tourniquet first, then needle from arm.
- 4. Apply pressure to the puncture site with a gauze pad to stop the patient's bleeding. Parent/guardian or child may continue holding direct pressure on the puncture site.
- 5. If drawn directly into vacutainer tube, immediately mix the specimen manually by inverting a minimum of 10 times.
- 6. If drawn with a butterfly into the syringe, immediately inject the blood from the syringe into the vacutainer tube, gently mixing while filling. Continue to mix the specimen by inverting 10 times.
- 7. Dispose of used needle and syringe equipment into puncture proof Sharps container.
- 8. Identify each skin puncture specimen with the patient's name, at a minimum, and collection date.

#### **Submitting Specimens to the Public Health Laboratory for Testing:**

- 1. Complete a laboratory requisition (see on page 46) to include the patient's name, date of birth, gender, collection date, submitter information, and, if applicable, Medicaid billing information.
- 2. Place the well mixed, unclotted blood specimen into the ziplock transport bag. Fold the requisition form and place in sleeve of the bag. Place the ziplock bag(s) into a preaddressed white mailing canister. Store the specimen(s) in the refrigerator until shipped. Specimens are transported at ambient temperature by mail or courier.
- 3. Specimens are stable for 7 days at refrigeration temperatures.

**Results:** Laboratory test results will be mailed to the submitter upon completion of testing.

#### **CLINICAL LABORATORY REQUISITION FORMS**

#### Various requisition forms are available through the Laboratory office:

- The **standard request form**, preprinted with your account information; all clinical testing can be ordered with this form
- A specific form for **chlamydia/gonorrhea screening** only; this form collects additional information for public health program planning
- A newborn screening panel form; this form contains the dried blood spot collection kit

Examples of each form are included on the following pages, as well as specific instructions on filling out the Chlamydia/GC and Newborn Screening forms.

#### **General Instructions:**

Please fill the forms out completely to include (at a minimum):

Patient Last Name or anonymous identifier

Patient First Name

Patient ID #

Date of Birth

Gender

Medicaid # (if applicable)

UPIN # of Physician/Clinician (preferred)

Physician/Clinician Name (if UPIN# is not provided)

Specimen Collection Date

Date of Onset of Illness (for serology and molecular testing)

Source of Specimen (indicate if the serum is acute, convalescent, or a screen only)

Test(s) Ordered

**Note:** Forms are read using an optical scanning device. Please print information clearly in boxes indicated. Do not use preprinted labels or stamps.

### STANDARD LABORATORY TESTING REQUISITION FORM

MONTANA DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES P.O. Box 6489, Helena, MT 59604-6489 (406) 444-3444 (800) 821-7284 CLIA ID # 27D0652531			
PATIENT INFORMATION		PROVIDER INFORMATION	
LAST NAME			
FIRST NAME			
DAVISATION A			
PATIENT ID #	GENDER	PHYSICIAN / CLINICIAN NAME UPIN #	
1 1	Male Female	LAB USE ONLY	
MEDICAID#		EAD OSE ONE!	
TEST(S) REQUESTED INFORMATION	ON		
Serology:  TORCH Panel IgG  Tick Borne Disease Panel Hepatitis Acute Panel Blood Lead Brucella Antibody CTFV IgG Serology Cytomegalovirus IgG Antibody Fluorescent Treponemal Antibody (FTA-ABS) Hantavirus IgG & IgM Serology Herpes Simplex Virus IgG Serology HIV-1 Antibody Legionella IgG Serology Mumps IgG Serology Mumps IgG Serology RMSF IgG Serology RMSF IgG Serology Rubella IgM Antibody Rubeola (Measles) IgG Antibody Rubeola (Measles) IgM Antibody Syphilis Serology	□ Toxoplasma IgG Antibody     □ Toxoplasma IgM Antibody     □ Tularemia Antibody     □ Varicella Zoster Virus IgG Serology     □ West Nile Virus IgM Serology     □ West Nile Virus IgG Serology     □ Hepatitis B Surface Antigen     □ Hepatitis B Surface Antibody     □ Hepatitis B Total Core Antibody     □ Hepatitis B Core IgM Antibody     □ Hepatitis C Intibody     □ Hepatitis C Intibody	Virus Culture: Respiratory Virus Isolation Enteric Virus Isolation CNS Virus Isolation Virus Isolation Virus Isolation Cytomegalovirus Isolation Herpes Simples Virus Isolation Varicella Zoster Virus Isolation RSV Direct Detection  Nucleic Acid Amplification: Chlamydia and Gonorrhea Chlamydia Only Gonorrhea Only Varicella Zoster PCR Enterovirus NAAT Influenza A PCR Influenza B PCR Adenovirus PCR Metapneumovirus PCR Norovirus NAAT M. tuberculosis Direct Amplification Bordetella pertussis PCR	Microbiology: Autoclave Monitoring-BT Test Chemclave Monitoring Test Enteric Panel Culture Campylobacter screen Yersinia screen Vibrio screen EHEC (STEC) Toxin Test Clostridium difficile Toxin Test Bacteriology Culture/ID, Aerobic Bacteriology Culture/ID, Anaerobic Bordetella pertussis Direct Detection Bordetella pertussis Culture/ID Legionella Direct Detection Legionella Culture/ID Neisseria gonorrhoeae Culture/ID Streptococcus Group A Culture Screen TB Mycobacteria Culture/ID Fungus Culture/ID Ova and Parasite Exam Cryptosporidium/Cyclospora Detection Malaria Screen
Test(s) Requested (If Not Listed)  SPECIMEN COLLECTION DATE		Comments / Pertinent Information	/ Symptoms
/ / /		BPECIMEN SOURCE  Throat/NP Swab  Cervical Swal	The second secon
DATE OF ONSET		Stool/Rectal Swab Urethral Swal	
/ /		☐ Lesion Swab ☐ Sputum ☐ Urine ☐ EDTA Blood	Other
		☐ Acute Serum ☐ Convalescent	
			12

### CHLAMYDIA/GC SCREENING REQUISITION FORM

This form collects additional demographic information for public health program planning. Please submit this completed form with requests for chlamydia screening.

MONTANA DEPARTMENT OF PUBLIC HEALTH & Hi P.O. Box 6489, Helena, M (406) 444-3444 (800) 821	UMAN SERVICES T 59604-6489 -7284 CLIA ID # 27D0652531
PATIENT INFORMATION	PROVIDER INFORMATION
FIRST NAME	
PATIENT ID #	
DATE OF BIRTH  /	PHYSICIAN/CLINICIAN NAME  UPIN #  LAB USE ONLY
CLINICAL INFORMATION CONTRACTOR C	TEST(S) REQUESTED INFORMATION
RISK HISTORY (Check all that apply)    > 1 partner past 90 days   New partner past 90 days   Does not always use condoms   Exposed to Chlamydia   PID   Previous Chlamydia + in last 12 mo.   Exposed to Other STD   None   Did You Presumptively Treat this Patient For Chlamydia?   Yes   No	TEST REQUESTED SOURCE  Chlamydia & Gonorrhea Cervical Other  Gonorrhea Only Urethral  Chlamydia Only Urine
MTPHLO	802

#### CHLAMYDIA LAB/DATA FORM INSTRUCTIONS

**PATIENT NAME**: Please print clearly. LAST NAME first. The last name will be transformed into a numeric code and combined with date of birth to create a confidential ID code for date transmission.

**DATE OF BIRTH**: Please record in the MONTH/DAY/YEAR fashion. This field MUST be completed.

**PATIENT ZIP CODE**: Please print clearly and record the 5 digit zip code of the patient's residence. This will be used to determine the geographic distribution of chlamydia.

**SPECIMEN COLLECTION DATE**: This is the date the patient was seen at the clinic and a specimen for chlamydia testing was obtained. Please record in the MONTH/DAY/YEAR fashion.

**RACE/ETHNICITY**: These are separate categories which conform to the U.S. Census as well as other national data systems.

RACE: (check only one box) This information is obtained from the patient. Asian includes Pacific Islander. Native American includes Alaskan native. Use "Other" for persons of mixed race.	WhiteBlackNative AmericanAsianOtherUnknown
<b>ETHNICITY</b> : (check only one box) If unsure, ask the patient if they consider themselves to be Hispanic.	Hispanic Non-Hispanic Unknown
<b>RISK HISTORY</b> : (check all that apply) First three factors are self-explanatory. <u>Previous Chlamydia +</u> refers to whether the patient has had a positive chlamydia test during the past year.	>1 partner past 90 days New partner past 90 days Does not always use condoms Previous Chlamydia + in last 12 months None of the Above
<b>REASON FOR EXAM</b> : (check all that apply) This information is obtained from the patient. The first two boxes should be used to indicate whether the patient has symptoms; <u>only one of these</u> should be checked. In addition, you may also check one or more "Exposed to" boxes if these apply.	Symptomatic Routine - Asymptomatic Exposed to Chlamydia Exposed to Gonorrhea Exposed to other STD
CLINICAL SIGNS: (check all that apply)  Cervical Friability refers to easily induced bleeding with the initial swab.	Cervical Friability Mucopus PID Urethritis
<u>Mucopus</u> refers to yellow or green mucopurulent discharge from the cervix,	None
<u>PID</u> refers to Pelvic Inflammatory Disease. Signs and symptoms suggestive of PID include: abdominal pain/tenderness on pelvic exam, vaginal discharge/bleeding, dysuria, fever and sometimes nausea or vomiting.	
<u>Urethritis</u> refers to urethral discharge or dysuria.	
None refers to absence of all of the above clinical signs on exam.	
<b>TREATMENT</b> : Based on clinic/epidemiologic assessment, was the patient sent home with medication (or prescription) to treat chlamydia without waiting for chlamydia test results?	Did you presumptively treat this patient for Chlamydia? YesNo

#### NEWBORN SCREENING REQUISITION FORM

This form has attached special filter paper for collection of the blood spots.

The state of the s	- Carlo	Do Not Write in This Space  RACE OF BABY ETHNICITY OF BABY SPECIMENT	HO SH	,
Baby's			00 11 0	
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Daby S			XIII	1
ID Number	1 DF		0 0 0	1
Mother's			W A L	
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	- 1	☐ Congenital Adrenal Hyperplasia	I D MOO	8
	Last Name Baby's First Name Baby's Gen ID Number Baby's Last Name Baby's Last Name Baby's Lost Name Baby's Baby's Baby's Physician Medicaid ID Number Baby's	Last Name Baby's First Name Baby's Gender ID Number Baby Baby's Last Name Baby's Mother's First Name Baby's Mother's First Name Baby's Physician Medicaid ID Number Physician	Last Name Baby's First Name Baby's First Name Baby's First Name Baby's B	Last Name Baby's First Name Baby's Plots Name Last Name Baby's DATE SPECIMEN COLLECTED COLLECTION WEIGHT Greater than 1500 grams First Name Baby's Physician DNumber DATE SPECIMEN COLLECTED COLLECTION WEIGHT Greater than 1500 grams First Name Baby's Physician DNumber DATE SPECIMEN COLLECTED COLLECTION WEIGHT Greater than 1500 grams First Name Baby's Physician DNumber DATE SPECIMEN COLLECTED COLLECTION C24 Hours STHE BABY FEEDING? HAS THE

All information contained on the form is important, and must be completed.

Complete the patient information (name, sex, ID#, race, ethnicity) as well as the mother's name and baby's physician.

Mark the specimen as to whether this is the first screen performed on the baby, or repeat screen. If the baby was screened at the hospital, and then is followed up with a repeat test at the physician's office, mark the repeat box.

Accurately complete the birth date and specimen date. If the birth date and specimen date are only 1 day apart, and the >24 hour box is not marked, the baby will be assumed to be < 24 hours of age at the time of collection. Samples obtained from a child less than 24 hours old must be repeated.

Complete the birth weight in grams and mark if the collection weight is greater than 1500 grams. If the collection weight is not >1500 grams, enter the weight in grams in the blank provided. Samples obtained on a child < 1500 grams of weight must be repeated.

Answer the questions on feeding and transfusion history. In cases when the baby received a transfusion, please include the date of transfusion. Samples must be repeated 90-120 days post transfusion.

Mark the appropriate test(s) to be performed. PKU, Congenital Hypothyroidism, Galactosemia and Hemoglobinopathies are required tests; Cystic Fibrosis testing and MS/MS for Acylcarnitines and other Aminoacidopathies, CAH and Biotinidase are optional. This same form is used for monitoring Thyroxine levels on infants less than 6 months of age and Phenylalanine levels on patients with known PKU disease.

# Montana Public Health Laboratory 1-800-821-7284

### Supply Order Form

Revised 01/25/06 phl\forms\supsz4.doc

Physician/ Labor	ratory			
Facility				
Street Address				
City/State/Zip				
Date Ordered: <b>Quantity</b>	<u>Supplies</u>	Many of these supplies are		
	Chlamydia/GC Aptima <b>SWAB</b> Collection Kits	available on an automatic		
	Chlamydia/GC Aptima <b>URINE</b> Collection Kits	monthly		
	Tuberculosis Transports with Mailers	shipping schedule.		
	Ova & Parasite Transports with Mailers			
	Streptococcus Screening Kits	For details, contact the		
	Capillary Blood Lead Collection Kits	Laboratory at		
	Venous Blood Lead Collection Kits ? Vacutainer ? Syringe/Needle	1-800-821-7284		
	Cary-Blair Transport Medium (for stools and ba	acteriology cultures)		
	Microtest Transport Medium (for viral and chla	mydia isolation)		
	Pertussis Transport Medium			
	Polyester Flexible Wire Swabs for Nasopharyngeal Collection			
	White Specimen Mailing Tubes			
	Mailing Labels Spe	ecimen Bags		
	Forms Account Number:			
	Standard Laboratory Requisition Forms (blue)			
	Chlamydia / GC Request Forms (green)			
	HIV Request Forms (orange)			
	Neonatal Screening Forms	_ Envelopes		
	Premarital Certificates			

### **Lyme Disease Report Form**